A

# SERIES of PLANS,

FOR

# Cottages or Habitations

OF THE

# LABOURER,

## Either in Husbandry, or the Mechanic Arts,

Adapted as well to TOWNS, as to the COUNTRY.

ENGRAVED ON THIRTY PLATES.

To which is added, an Introduction, containing many uſeful Obſervations on this Claſs of Building; tending to the Comfort of the Poor and Advantage of the Builder: with Calculations of Expences.

By the late Mr. J. WOOD, of BATH, Architect.

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# SERIES of PLANS for COTTAGES, &c.

## INTRODUCTION.

EARLY in the Summer of the year one thouſand ſeven hundred and ſeventy ſeven, I was in company with ſome gentlemen of landed property, when the converſation turned on the ruinous ſtate of the cottages of this kingdom; it was obſerved that theſe habitations of that uſeful and neceſſary rank of men, the LABOURERS, were become for the moſt part offenſive both to decency and humanity; that the ſtate of them and how far they might be rendered more comfortable to the poor inhabitants, was a matter worthy the attention of every man of property not only in the country, but in large villages, in towns, and in cities.

Reflecting on this converſation; recollecting that no architect had, as yet, thought it worth his while to offer to the publick any well conſtructed plan for cottages; conſidering the regular gradation between the plan of the moſt ſimple hut and that of the moſt ſuperb palace; that a palace is nothing more than a cottage IMPROVED; and that the plan of the latter is the baſis as it were of plans for the former; prompted alſo by humanity to make my talent uſeful to the pooreſt of my fellow citizens; I reſolved on turning my thoughts towards an object of ſuch importance to the publick as plans for cottages appeared to me to be. But in order to make myſelf maſter of the ſubject, it was neceſſary for me to feel as the cottager himſelf; for I have always held it as a maxim, and however quaint the thought may appear, yet it is altogether true, that no architect can form a convenient plan, unleſs he ideally places himſelf in the ſituation of the perſon for whom he deſigns: I ſay it was neceſſary for me to feel as the cottager himſelf; and for that end to viſit him; to enquire after the conveniencies he wanted, and into the inconveniencies he laboured under.



I did

I did ſo; and the further I examined the wider was the field of ſtudy that opened itſelf to my view. The neceſſity there was of improving the dwellings of the poor labourer became continually more and more apparent. I found it neceſſary not to confine myſelf to the habitations of the labourer in huſbandry only, but to conſider thoſe of the workmen and artificers in the cloathing and other manufacturing counties. I began to be deſpirited; to doubt my abilities; and to wiſh that a man of much greater eminence than myſelf had undertaken ſo uſeful a work; a work not unworthy the attention of the moſt experienced architect. However I determined to proceed, flattering myſelf, that although I ſhould not produce a perfect work, yet at the leaſt, I ſhould lead the way to ſome greater improvement.

The greateſt part of the cottages that fell within my obſervation, I found to be ſhattered, dirty, inconvenient, miſerable hovels, ſcarcely affording a ſhelter for beaſts of the foreſt; much leſs were they proper habitations for the human ſpecies; nay it is impoſſible to deſcribe the miſerable condition of the poor cottager, of which I was too often the melancholy ſpectator.

Of the better kind of theſe cottages the poor inhabitants complained,

That they were *wet and damp*, from their being built againſt banks, or in low *dreary* ſpots; and from the floors of them being ſunk, as it were, into the ground having one ſtep *(a)* down into them and ſometimes two.

That they were *cold and cheerleſs*, from the entrances not being ſkreened; from the aukward ſituation of the door, windows, and chimney; and from the thinneſs of the external *(b)* walls.

That

*(a)* This error is not confined to cottages only, but it is to be obſerved in moſt houſes in the country; as well in thoſe erected years ago, as in thoſe, ſtrange to ſay it, built in modern times.

*(b)* In my neighbourhood they build the external walls, both of cottages and houſes, with freeſtone, barely ſix inches thick; and in the countries, where brick is made uſe of, and particularly where the brick is rather dear, I obſerved they generally made the external walls nine inches, or one brick thick. In the firſt caſe I have been often an eye witneſs of the rain driving, not only through the joints, but even the ſtone itſelf; and in the winter, I have ſeen the inſide of theſe walls covered with ice from the roof to the foundation. In the ſecond caſe, the ſame circumſtances attend the nine inch walls, as I was informed by the ſeveral inhabitants.

That they were *inconvenient* from their want of room; and from the ſteepneſs, ſtraitneſs and bad *(c)* ſituation of the ſtairs, where there was an upper floor.

That they were *unhealthy* from the lowneſs and cloſeneſs of the rooms; from their facing moſtly the north and weſt; and from the chambers being crouded into the roof, where having nothing to defend them from the weather but the rafters and bare roof without ceiling, they were ſtifling hot in the ſummer, and freezing cold in the winter; the triangular ſhape of the roof rendered them alſo incommodious; the dormer windows *(d)* being continually out of repair, and the dormers leaky added greatly to the dampneſs, unhealthineſs, and decay of the cottage.

Now to obviate theſe complaints, and to remove theſe inconveniencies, I ſhall lay down the SEVEN following principles, on which all cottages ſhould be built.

*Firſt*, The cottage ſhould be DRY and HEALTHY; this is effected by keeping the floor *ſixteen* or *eighteen* inches *(e)* above the natural ground; by building it clear of banks, on an open ſpot of ground, that has a declivity, or fall, from the building; by having the rooms not leſs than *eight* feet high, an height that will keep them airy and healthy; and by avoiding having chambers in the roof.

*Secondly*, WARM, CHEARFULL, and COMFORTABLE. In order to attain theſe points the walls ſhould be of a ſufficient thickneſs (if of ſtone, not leſs than *ſixteen* inches; if of brick, at leaſt a brick and

*(c)* The ſituation of the ſtairs being generally at the ſide of the chimney; I need not expatiate on the inconveniency thereby produced; and to the old, and infirm, the ſteepneſs or ſtraitneſs are very troubleſome, and dangerous.

*(d)* Dormer, or dormant windows are ſuch as are commonly placed in the roof; the rafter, on which the cheek or ſide of the window reſts, is called the dormant rafter; and it is eaſily conceived, how difficult it muſt be to make the joining betwixt the upright cheek and the tile, or other covering, ſo cloſe as to prevent leakage, which muſt of courſe rot the dormant rafter, and bring on in a ſhort ſpace of time the decay of the Roof.

*(e)* For want of this precaution, I have always obſerved, that in wet ſummers, and throughout the whole winter, the walls ſucked up (if I may be allowed the expreſſion) the water, and are damp for at leaſt a yard high; and this happens not only where the walls are thin, but even in buildings where they are thick.

and half;) to keep out the cold of the winter, or the exceſſive heat of the ſummer. The entrance ſhould be *(f)* ſkreened, that the room, on opening the door, might not be expoſed to the open air; the rooms ſhould receive the light from the eaſt, or the *(g)* ſouth, or from any point betwixt the eaſt and the ſouth; for if they receive their light from the north, they will be cold and cheerleſs; if from the weſt, they will be ſo heated by the ſummer's afternoon ſun, as to become comfortleſs to the poor labourer after an hard day's work; whereas on the contrary, receiving the light from the eaſt or the ſouth, they will be always warm and chearful; ſo like the feelings of men in an higher ſphere are thoſe of the poor cottager, that if his habitation be warm, chearful, and comfortable, he will return to it with gladneſs, and abide in it with pleaſure.

*Thirdly*, CONVENIENT, by having a porch, or ſhed, to ſkreen the entrance and to hold the labourers tools; by having a ſhed to ſerve as a pantry, and ſtore-place for fuel; by having a privy *(h)* for cleanlineſs and decency's ſake; by a proper diſpoſition of the windows, doors, and chimneys; by having the ſtairs, where there is an upper floor, not leſs than *three feet* wide; the riſe, or height not more than *eight inches*, and the tread, or breadth not leſs than *nine inches*; and laſtly by proportioning the ſize of the cottage to the family that is to inhabit it; there ſhould be one lodging room for the parents, another for the female, and a third for the male children; it is melancholy to ſee a man and his wife, and ſometimes half a dozen children crouded together in

*(f)* This circumſtance muſt be particularly attended to, in thoſe rooms where there is intended to be a bed.

*(g)* At firſt view this nicety may appear trifling, but on mature deliberation will prove of very material conſequence.

*(h)* This convenience will anſwer many good ends, but in nothing more than being an *introduction to cleanlineſs*. In the account of the Voyage to the South Sea, publiſhed by Dr. Hawkſworth, ſpeaking of the inhabitants of New Zealand is the following paſſage. "In "perſonal delicacy they were not equal to our Friends at Otaheite, "for the coldneſs of the climate did not ſo often invite them to "bathe, but we ſaw among them one inſtance of cleanlineſs, in "which they excelled them, and of which perhaps there is no "example in any other Indian Nation; every houſe or every cluſter "of three or four houſes was furniſhed with a *privy*, ſo that the "ground was every where clean." What a reflection is this on the greateſt part of the inhabitants of Britain to be exceeded in neatneſs in any one point by that barbarous race of people the New Zealanders? I could mention many large and opulent towns, particularly on the ſea coaſts, nay ſome large cities, where there is ſcarcely ſuch a convenience in the whole place, for want of which, the ſtreets are perfect jakes; to the annoyance of both Inhabitants and Strangers.

in the ſame room, nay often in the ſame bed; the horror is ſtill heightned, and the inconveniency increaſed at the time when the woman is in child-bed, or in caſe of illneſs, or of death; indeed whilſt the children are young, under nine years of age, there is not that offence to decency if they ſleep in the ſame room with their parents, or if the boys and girls ſleep together, but after that age they ſhould be kept (*i*) apart.

*Fourthly*, Cottages ſhould not be more than TWELVE feet wide in the clear (*k*) being the greateſt width that it would be prudent to venture the rafters of the roof with the collar pieces (*l*) *only*, without danger of ſpreading the walls; and by uſing collar pieces, there can be fifteen inches in height of the roof thrown into the upper chambers, which will render dormer windows (*m*) uſeleſs. The collar pieces will ſerve for ceiling joiſts; and the ſmall portion of the roof, that is thrown into the room, will not create thoſe inconveniencies that attend rooms, which are totally in the roof.

*Fifthly*, Cottages ſhould be always built in PAIRS; either at a little diſtance the one from the other; or cloſe adjoining ſo as to appear as one building, that the inhabitants may be of aſſiſtance to each other in caſe of ſickneſs or any other accident.



(*i*) I am aware that the ſtatute of the 5th of Elizabeth, concerning the apprenticing poor children, and compelling adults to go out to ſervice, will be here objected to me, but the objection ſoon vaniſhes when we conſider; *firſt*, That it may be policy, in many caſes, to let the children live at home with their parents 'till they are grown up, particularly in the manufacturing Countries; where the trade of the Father will be more carefully taught the children, whoſe earnings often, nay generally, contribute to the better maintenance of the Family. *Secondly*, The power given to the pariſh officers by that act is very much circumſcribed, and is confined merely to their own pariſhes; indeed they may, if they can find proper maſters in other pariſhes, bind out their orphan poor, and the children of ſuch poor as are willing to part with them; but this muſt be done by the conſent of the magiſtrates, who ſhould be very careful how they take the burthen off from one pariſh, and lay it on another.

(*k*) Twelve feet is a width ſufficient for a dwelling that is to be deemed a cottage; if it be wider, it approaches too near to what I would call a houſe for a ſuperior tradeſman; beſides, it would require longer and ſtronger timbers, girders to the floors and roof, and conſequently greatly enhance the expence; a circumſtance one would wiſh in all buildings to avoid.

(*l*) A collar piece, is that piece of wood which ties the rafters together at ſome height above the wall plate, as is expreſſed in Fig. 1. in the firſt miſcellaneous plate, by the letter A. and is generally dove-tailed into the rafters.

(*m*) Becauſe the room being *ſix feet and ten inches* high to the top of the wall plate, there will be ſufficient height to make a window in the ſide wall under the plate.

*Sixthly*, As a piece of OECONOMY, cottages ſhould be built ſtrong, and with the beſt of materials, and theſe materials well put together; the mortar muſt be well tempered and mixt, and lime not ſpared; hollow walls bring on decay, and harbour vermin; and bad ſappy timber ſoon reduces the cottage to a ruinous ſtate; although I would by no means have theſe cottages fine, yet I recommend regularity, which is beauty; regularity will render them ornaments to the country, inſtead of their being as at preſent diſagreeable objects.

*Seventhly*, A PIECE OF GROUND for a garden ſhould be allotted to every cottage (*n*) proportionable to its ſize; the cottage ſhould be built in the vicinity of a ſpring of water, a circumſtance to be much attended to; and if there be no ſpring, let there be a well.

On the foregoing SEVEN principles I recommend all cottages to be built; (*o*) on them I have formed the following plans, which I divide into four claſſes or degrees. *Firſt*, cottages with ONE room; *Secondly*, cottages with TWO rooms; *Thirdly*, cottages with THREE rooms; and *Fourthly*, cottages with FOUR rooms, of each of which in order.

But before I proceed, it will not be improper to inform the reader, that the following plans are calculated for the neighbourhood to the *eaſtward* of the city of Bath; I ſay to the *eaſtward* of

(*n*) This will hold good in the country where ground is not of ſo great a value, but in towns we muſt be content with a ſmall outlet behind.

(*o*) I cannot more properly than in this place obſerve, that near Dorcheſter, in Dorſetſhire, there has been lately erected a row of four cottages for the accommodation of an adjoining Farm, in which there has not been the leaſt attention paid either to the principles of ſound building, or to decency, or conveniency. The entrances are from the weſt, and not ſkreened; the windows are to the ſame point; the cottage is *ſeventeen feet and an half* wide in the clear; and the whole triangular ſpace of the roof occupied as a chamber. The conſequence is, that the walls, which have not been built more than *three* years, are already conſiderably ſpread, and muſt in a ſhort time fall down; the poor inhabitants told me that they could ſcarcely ſupport the heat of theſe rooms in the ſummer, and that they were quite frozen in the winter. The indecency of one chamber for a large Family, is here very ſtriking; and what adds to the ſhameleſsneſs of it, was the partitions between houſe and houſe being nothing more than thin, rough boards not jointed; and yet the rent, paid for each cottage, is *fifty and two ſhillings* a year. It is a pity that gentlemen, who build cottages for the accommodation of their labourers, did not ſtudy ſtability for their own ſakes, and conveniency and decency for the ſake of the inhabitants; for, believe me, the poor man wiſhes for conveniency, but knows not how to remedy himſelf; and would be decent, was it in his power.

of Bath, becauſe a little way either to the eaſt, or to the weſt, makes a ſenſible difference in the expence of the carriage of the ſtone.

It is very remarkable, that if a line be drawn from north to ſouth through the city of Bath, leaving the hot ſprings to the eaſtward, ~~that~~ all the ſtone immediately to the eaſtward (*p*) of that line is a fine freeſtone, and continues ſuch for about four miles to the eaſt, when it changes to a ſhelly tile, which runs about ſix miles further eaſtward, and then becomes a chalk in the Wiltſhire hills. Immediately on the weſt of the above deſcribed line, the ſtone is hard, called the blue and white lyas, both will burn into lime, but the blue is the beſt. This lime is very ſtrong, of a brown colour, (or what the workmen term it, *caſts* brown) and ſets or grows hard (*q*) under water. This lyas ſtone continues for eight miles weſtward, and then changes into a gritty, thin-bedded, hard ſtone, called pennant, with which the foot pavements of the ſtreets (*r*) are laid; this pennant ſtone runs four miles further weſtward to the city of Briſtol, and then becomes a very hard lime-ſtone, which caſts white, but will not ſet in water. Thus at Bath we have ſtone for tile; a freeſtone, perhaps the fineſt in the kingdom; two kinds of lime-ſtone; and an excellent ſtone for paving, all within an eaſy carriage of the city.

The freeſtone is ſawed out with a common hand-ſaw into what is called *perpen-aſhlar*, (*s*) that is, ſtone of four, ſix, eight or ten inches thick, and of ſuch height and length as the rock will admit of; but generally into, what is called, ten, twelve, or fourteen inch courſes, and the ſtone from two feet and an half, to four feet and an half in length. A wall well built with ſix inch

(*p*) If this line be continued northward forty miles, even to Glouceſter, the ſame circumſtance of having freeſtone to the eaſt will ſtill attend it; and if continued ſouthward about twenty miles, through Shepton-Mallet, 'twill be the ſame alſo, except about two miles over Mendip, where the hard lime-ſtone rock runs a few miles to the eaſt to Vobſter, in the pariſh of Mells, and is there loſt.

(*q*) This lime with coal aſhes, mix'd in the manner preſcribed by Mr. Loriot, will make the hardeſt cement I ever ſaw, as I have found by various experiments; it will hold water, reſiſt froſt, harden in a few hours in water, and will bear a very good poliſh.

(*r*) The coach or carriage ways are laid, or pitched with blue lyas, which wears very well, tho' it will not bear the froſt.

(*s*) A provincial term; a corruption I imagine of perpendicular, as the ſtone in this form is placed on the edge, and muſt of courſe be ſet very plumb, or perpendicular; and the edge or bed truly ſquare with the upright ſurface.

inch aſhlar is much ſtronger than a brick wall of nine inches thick; but if ſuch ſix inch walls be the external ones of any dwelling, the rooms within, as I obſerved before, will be ſultry hot in the ſummer, and freezing cold in the winter; however, ſuch thin aſhlar makes moſt excellent inſide partitions.

Now as there is ſo great a difference in the building materials, within ſo ſhort a ſpace of ground as ten miles either to the eaſt or to the weſt of one town, how much muſt the materials of one county vary from thoſe of another? We may therefore juſtly conclude that the prices of building muſt vary in every county; although I have found by experience, that the difference on the whole is very little, throughout the kingdom, if the builder is content to make uſe of the *local* materials of the country where he builds.

It was obſerved above, that the eſtimates for the following cottages were to be made for the neighbourhood of Bath. I ſhall therefore now proceed to deſcribe the method of building, and the materials made uſe of in that part of the country; and alſo to ſhew the prices there given not only for materials, but for workmanſhip, both by the yard, and by the day. From which premiſes, I ſhall be enabled to lay down ſuch a ſcale, if I may be allowed the expreſſion, as will put it in the power of the reader, with very little trouble, to aſcertain the value of the ſame kind of work in any other country. And as there are ſeveral branches of the building buſineſs employed in the erection of an humble cottage, I will conſider and explain every branch ſeperately.

MASON'S WORK. The materials made uſe of in this branch are *rough walling ſtone* and *aſhlar*. The foundation ſhould be *two feet* thick, and *two feet* high to the level of the floor of the room; the walls above that level to be *twenty* inches thick; the walls of the ſheds to be built with *four inch* (*t*) aſhlar; the quoins, the jaumbs and heads of the chimneys, doors and windows (*u*) to be of

(*t*) In countries where there is no ſuch aſhlar, thoſe walls muſt be built as thin as poſſible with the ſtone of the country. And where bricks are made uſe of, a wall of the thickneſs of half a brick will anſwer the purpoſe very well.

(*u*) This will not increaſe the expence; becauſe the labour ſaved in hewing the quoins, jaumbs, &c. in the rough ſtones, will amply pay for the extraordinary expence of the freeſtone, made uſe of in thoſe ſeveral articles.

of aſhlar; as alſo the ſills of the windows, the ſummer-ſtones, the barge-ſtones, and (*w*) the tabling; the tuns, or that part of the chimney that riſes above the roof, ſhould be of the ſame material.

A waggon load of ſtones, which at the quarry coſts *eight-pence*, and the carriage of which will be *two ſhillings and four-pence*, is ſufficient to build a *perch* of walling conſiſting of *thirty* cubical feet.

Two rough maſons, (*x*) each of whoſe wages are *twenty-pence* for the day, and one maſon's labourer at the daily wages of *ſixteen-pence*, will build about *four* perch in a day, including the mixing of the mortar; thus the coſt of *one* perch is *fourteen-pence*, but an allowance of *one penny* is to be made in every perch for the trouble of erecting and taking down the ſcaffolds, which will make the value of a perch *fifteen-pence*.

*Twelve* buſhels of lime at *four-pence* the buſhel; and *one* cart load of mortar dirt, or ſand, at *fifteen-pence* the load (the whole making *five ſhillings and three-pence*) will be ſufficient for *three perch and an half* of work, *that is*, exactly *eighteen-pence* the perch.

*Four Inch* aſhlar delivered on the ſpot is worth *three-pence*, and the workmanſhip in ſetting the ſame, and afterwards cleanſing it down, is *one penny* for every foot ſuperficial, to be meaſured on one ſide only; the mortar with which ſuch aſhlar is ſet, is lime and the ſand of the freeſtone, but the quantity is ſo ſmall, that the value of what is uſed in ſetting an *hundred feet* of four inch aſhlar, will ſcarcely amount to *ſix-pence*.



(*w*) In the firſt miſcellaneous plate, *Fig.* 2. A, is the *ſummer ſtone*; B, B, the *barge ſtones*; C, the *tabling*, the firſt piece of which is worked in the ſolid of the ſummer ſtone, and ſo becomes an abutment, as at D, and ſupport to the reſt of the tabling. The tabling is *three* inches thick, and *nine* inches broad; *two* inches project over the gable end, and as the barge ſtones are *four* inches thick, there are *three* inches of it to project over the covering, which makes the neateſt finiſh that can be imagined. The inclined plane of the gable end is called the *barge*. In walls where barge ſtones are not made uſe of, their place is ſupplied with a rafter, called the *barge rafter*; and this ſupports the outward courſe of tile, called the *barge courſe*.

(*x*) The maſon that ſets the ſtone is called a *rough maſon*; the man that works the freeſtone is called a *free maſon*; a maſon's labourer has always greater wages than a common labourer, as it requires ſkill and practice to attend maſons.

The price, therefore, of a perch of walling will ſtand thus,

| | s. | d. |
|---|---|---|
| One load of ſtone at the quarry | 0 | 8 |
| Carriage of one load | 2 | 4 |
| Expence of mortar | 1 | 6 |
| Workmanſhip | 1 | 3 |
| | 5 | 9 (y) |

Now as the ſame quantity of materials will do the ſame quantity of work in every country where ſtone is made uſe of, the above example will eaſily aſcertain the value of a perch of wall in any place whatſoever, in proportion to the price of materials, and in proportion to the wages of the maſon and labourer. In thoſe counties where chalk and flint, or flint alone is made uſe of, the caſe will be very near the ſame. And there will not be a very great difference even where they build mud-walls. I have ſeen thoſe kind of walls, particularly in Cornwall, very ſtrong and good; but if the builders would, as they lay on wet dirt, ſtraw, and ſmall ſtones, throw in a ſmall quantity of quick lime finely pounded, it would greatly ſtrengthen the work; and I adviſe them not to be ſparing of band-timber, if they deſire their buildings to be durable.

BRICKLAYERS WORK. This work is performed by the *rod*, containing *two hundred and ſeventy-two feet* ſuperficial of wall a *brick and an half* thick, to which ſtandard thickneſs all the walls are to be reduced. *Four thouſand and five hundred bricks* will do a rod of work; the mortar for that quantity of work will be *thirty* buſhels of lime, and *two* cart loads of ſand; the mixing of the mortar will employ a labourer *one* day; and a bricklayer and his labourer will build a rod in *five* days.

The price therefore of a rod of brick work in London and its neighbourhood will be as in the following table.

4500 of

(y) The price of *five ſhillings and nine pence* for the perch is the coſt that every maſter-builder will be at, out of his own pocket, excluſive of his own time, of the wear and tear of ſcaffolding, intereſt of money, and a reaſonable profit, ſo that if ſuch maſter-builder be employed, and he is to provide all materials, labour, and carriage, there ought at leaſt *ſeven per cent.* to be allowed him.

| | | | | | |
|---|---|---|---|---|---|
| 4500 of bricks at 21*s.* the thouſand, delivered on the ſpot | | | | 4 | 14 6 |
| 30 buſhels of lime at 6*d.* the buſhel, delivered on the ſpot | | | | 0 | 15 0 |
| 2 cart loads of ſand at 3*s.* the load, delivered on the ſpot | | | | 0 | 6 0 |
| 1 day a labourer mixing the mortar at 1*s.* 6*d.* | | | | 0 | 1 6 |
| 5 days a bricklayer at 2*s.* 6*d.* | | | | 0 | 12 6 |
| 5 days a labourer at 1*s.* 6*d.* | | | | 0 | 7 6 |
| | | | £ | 6 | 17 0 |

In countries diſtant from London, where labour and materials are cheaper, the price will of courſe be leſs; for inſtance, at Stockport, in Cheſhire, the price of a rod of brick work will be as follows.

| | | | | | |
|---|---|---|---|---|---|
| 4500 bricks at 11*s.* the thouſand | | | | 2 | 9 6 |
| 30 buſhels of lime at 6*d.* the buſhel | | | | 0 | 15 0 |
| 2 cart loads of ſand at 6*d.* the load | | | | 0 | 1 0 |
| 1 day a man to mix the mortar at 1*s.* 2*d.* | | | | 0 | 1 2 |
| 5 days a bricklayer at 1*s.* 8*d.* the day | | | | 0 | 8 4 |
| 5 days a labourer at 1*s.* 2*d.* | | | | 0 | 5 10 |
| | | | £ | 4 | 0 10 |

It muſt here again be obſerved, that theſe prices are excluſive of materials for ſcaffolding, and alſo of the reaſonable profit that ſhould be allowed to a maſter bricklayer.

IRONMONGERY. I mention this article before the carpenters work, becauſe there are many articles of the ironmongery goods made uſe of in the carpenters branch, and eſtimated with it; the following are the chief; *four*, *ſix*, *eight*, *ten* and *twelve-penny* nails; double *tens*; *ſix* inch ſpikes at a *halfpenny* a piece; *eight*, *ten*, and *twelve-penny flooring brads*; *three*, *four*, and *ſix-penny clout nails*; ſix inch I-L *hinges*, at *ſeven pence* the pair; ten inch T *hinges* at *one ſhilling* and *ſixpence* a pair; caſement *ſtays* at *three pence* the pair; caſement *faſtnings* at *two pence* the pair; ſtock locks at *two ſhillings* a piece, and caſement ſquares at *one ſhilling* the ſet.

CARPENTERS WORK. The wages of a carpenter are *two* ſhillings a day, the price of fir timber *twenty pence*, and of elm *ſixteen pence* the foot cubical; fir board, *one inch* thick, *eighteen ſhillings*, and elm board of the ſame thickneſs *ſixteen ſhillings* the hundred feet; that is, the former about *two pence farthing*, the latter *two pence* the foot. I muſt obſerve, that although fir is dearer than elm by the foot, yet it is cheaper to uſe the former, as there is ſo much waſte in the latter, occaſioned by the elm being in general what the workmen call very *waney*. Sawing is done by the hundred feet, from *two ſhillings* to *three* the hundred; deal quarter *four* inches by *three* is worth *two pence* the foot running.

The roofs of cottages I adviſe to be framed with rafters *two inches* thick; *ſix inches* broad at the foot, B, *(in fig.* 1. *firſt miſcell. Plate)* and *five inches* broad at the point, C; *tied* together by the collar piece, A, *five inches* broad, and *two* thick; *dove-tail'd* at each end, as at D, D, into the rafters; *halved* together at the point, C, there faſtened with *two* tenpenny nails; and *abutted* with a *bird's-mouth*, as at, E, E, on the wall plate, into which they are to be nailed, at the foot, with a *double tenpenny* nail; the wall plate to be *five inches* broad and *two* thick. In order to keep the roof ſteady, put a ridge piece of inch board *ſix inches* broad, notched on the upper edge, about *two inches* deep, to receive and clip the rafters at the internal angle of the point, and let it be drove up to its place by a collar of inch board, *ſix inches* broad, which faſten to the rafters with four *tenpenny* nails, as expreſſed by *Fig.* 3, in the ſame plate, where A is the ridge piece, and B, B, the ſmall collar; *Fig.* 4, repreſents the ſame ridge piece, lengthways, with the notches as above deſcribed.

The pitch of the roof to be as in *Fig.* 5, in the ſame plate, ſuppoſe a triangle A B C to repreſent the roof, where A C is the horizontal length of the baſe, or diſtance from one foot of the rafter to the other, biſect the line A C at D; on the point D erect the perpendicular D E; divide A D, or C D, into four equal parts, then take three of theſe parts and ſet them off on the line D E to the point B; then will A B, or C B, be the length of the rafter, and be equal to five of ſuch parts as A D is divided into, by the *forty-ſeventh* propoſition of the firſt book of Euclid. For A D, the baſe, being *four*, its ſquare will be *ſixteen*; and D B, the perpendicular, being

being *three*, its ſquare, will be *nine*; *nine* and *ſixteen* make *twenty-five*, the ſquare root of which is *five*, equal to the length of the rafter, or hypothenuſe A B. If workmen would well conſider this pitch, it would ſave a deal of timber, time, and waſte. And I can aſſure them, from long experience, that it is ſufficiently ſteep for any materials that are made uſe of in this kingdom for covering of buildings.

Having mentioned above, that the rafters of the roof muſt be abutted on the wall plate with a *bird's-mouth*, as at E E, referring to the firſt Figure in the firſt miſcellaneous plate, and as the ſcale to which that figure is drawn is but ſmall, and probably what I call a *bird's-mouth* may not be ſufficiently underſtood, it is expreſſed in a larger ſcale by the ſixth figure in the ſame plate, where A is the wall plate; B the rafter; and c d e the *bird's-mouth*. I muſt obſerve alſo, that the collar piece is directed to be *dove-tailed* at each end into the rafters; it muſt be further directed to be kept in its place by *four* hold-faſts or ſtay-hooks, ſuch as are uſed by plumbers, of about the value of an *halfpenny* each, driven through the rafters, and clinched, at the places marked with the black dots on the rafters in *the firſt figure*; theſe will keep the collar piece in its place, and prevent its ſtarting, without deſtroying the operation of the *dove-tail*, which would certainly be the caſe if the ends of the collar piece were to be nailed to the rafters.

Wherever the roof is hip'd there muſt be an angular brace of quarter, dove-tailed into the wall plate, as at A A, *Fig.* 7; the mortice to be *one inch* deep, and the under-ſhoulder *half an inch*, ſo that the upper ſide will be *one inch and an half* above the wall plate; then let the diagonal piece C B, *ſix inches* broad and *one and an half* thick, be dove-tailed, at the end B, into the brace A A, its whole thickneſs deep, then will the upper ſide be fluſh with the upper ſide of the brace, and its under ſide at C, be flat on the wall plate. This diagonal piece is the abutment to the hip rafter.

A ſquare of ſuch roof, including the wall plate, will contain *thirteen feet* of timber; *one hundred* feet of ſawing; and *eight* feet of inch board; it will alſo require *forty* tenpenny nails,

and *twelve* double tens; and two men will frame and put up two ſquares in a day and an half. The price therefore of a ſquare of ſuch roofing will ſtand thus,

| | | | | |
|---|---|---|---|---|
| 13 feet of timber at 1*s*. 8*d*. | — | — | — | 1 1 8 |
| 8 feet of board at 2*d*. farthing | — | — | — | 0 1 6 |
| 100 feet of ſawing | — | — | — | 0 2 6 |
| 24 holdfaſts, or ſtay-hooks, at a halfpenny a piece | | — | — | 0 1 0 |
| Nails | — | — | — | 0 0 7 |
| Labour | — | — | — | 0 3 0 |
| | | | | £ 1 10 3 |

The flooring I adviſe to be thus, the joiſts to be *ſix inches* by *four*, and to lie from wall to wall the breadth of the building; two half joiſts to be placed againſt each end, and the remaining ſpace ſo divided, as to be about *three feet* from middle to middle of the joiſts, as deſcribed by *Fig*. 8, *in the firſt miſcellaneous plate*, where A A are the half joiſts, B B the whole joiſts, and C C the trimmers on each ſide of the chimney; then the flooring boards to be *one inch and a quarter* thick, groov'd and tongued, (*z*) and planed on both ſides. The joiſts alſo ſhould be planed and tried up; theſe joiſts will be worth *four-pence* the foot for the ſtuff; and the planing, trying up, and laying, *three farthings* the foot running; a ſquare will require *thirty-three* ſuch feet; again, a man can plane, groove, tongue, and lay about *three yards* of flooring in a day, which amounts to *one penny* the foot nearly, or *eight ſhillings* and *four pence* the ſquare; board, *one inch and a quarter* thick, is worth *three pence* the foot, and a ſquare of flooring will require *one hundred* of *tenpenny* flooring brads; under the ends of the joiſts I would have a plate D of *inch and quarter* board, ſix inches broad, laid into the wall, this will add about *eight* feet of board to every ſquare. I adviſe alſo, that a plate of the ſame ſcantling, planed on the under ſide only, be laid on the joiſts and nailed down to them; and a ſimilar plate laid along each end of the room at the ſame level, the one for the ſides of the flooring boards to joint to; the other to receive the

(*z*) *Grooved and tongued.* That is, on both edges of the board, exactly in the middle, is made a groove about three quarters of an inch deep, then a thin piece of wood, of an inch and a half broad, is put into the groove of one board, and the other is drove up to a cloſe joint on it; Figure 9 in the firſt miſcellaneous plate, repreſents the ſection of two boards, the grooves A A on their edges, and the thin piece of board B called the tongue, all ſeparate; and Figure 10 repreſents the ſame when cloſed.

the heading joints, this will increaſe the price of the ſquare about *three ſhillings*. The price therefore of a ſquare will ſtand thus,

| | | | | | |
|---|---|---|---|---|---|
| 33 feet of joiſts, work included, at four-pence three farthings | | | | | 0 13 0¾ |
| 100 feet of flooring board at four-pence, work included | | | | | 1 13 4 |
| 8 feet of plate at three-pence | | | | | 0 2 0 |
| The extraordinary expence of the plate above mentioned | | | | | 0 3 0 |
| 100 tenpenny brads | | | | | 0 0 10 |
| | | | | | £ 2 12 2¾ |

There is another method of making the naked floor, which is, to put a beam acroſs the room of *eight* inches ſquare, and then the joiſts to be of quarter, *four* inches by *three*, placed in the manner above deſcribed; in this caſe, if the bearing of the joiſts be but *five* feet and *eight* inches, the expence will exceed the above method a mere trifle; but if the bearing be larger, the ſcantling of the joiſts muſt be increaſed, or the joiſts placed nearer together, whereby the expence will be conſiderably enhanced. The former method of flooring I have found by experience to be the beſt ever yet put in practice for ſmall houſes, where the bearing of the joiſts does not exceed twelve feet; it is attended with theſe peculiar advantages, there is no harbour for vermin; the joints of the flooring boards are ſo ſecured, that neither wet, nor duſt, can fall from the upper to the lower floor; nor is there any occaſion for lath and plaiſter.

The partitions are to be boarded with boards *one inch and a quarter* thick, grooved and tongued, and planed on both ſides, in the ſame manner as the floors, ſo the price will be *one pound fifteen ſhillings* the ſquare; that is, *one pound thirteen ſhillings and four pence* for board and work, and *one ſhilling and eight pence* for nails and battens; this is to be underſtood of ſuch partitions as have no doors in them, but where there are doors, *one ſhilling and four pence* muſt be allowed the workman for each door, to pay him for his extraordinary labour and time, that muſt neceſſarily be employed in framing and hanging the door, and in making the latch and catch, or ſuch other faſtning as ſhall be thought expedient.

All

All doors, not in partitions, to be battened doors, with frames of quarter; every door *three* feet wide, and *ſix feet four inches* high, will take *twenty-four* feet of inch board, battens included, and *eighty* tenpenny nails; each frame will require *twenty* feet of quarter, and a man can make a well rabbetted door, it's frame, hang, and put up the ſame, in a day; ſo that the price of a door ſtands thus,

| | s. | d. |
|---|---|---|
| 24 feet of inch board at two pence farthing | 4 | 6 |
| 22 feet of quarter at two pence | 3 | 8 |
| 80 tenpenny nails | 0 | 8 |
| Workmanſhip | 2 | 0 |
| A pair of T hinges at one ſhilling and ſix pence | 1 | 6 |
| | 12 | 4 |

The windows for the lower floor are to be *three* feet wide and *four feet ſix inches* high; the frames of quarter; and the caſements of *inch and quarter* board; the windows of the upper floor *three* feet ſquare. One of the larger windows will take *twenty-two* feet of quarter; *one* foot of board, and a man can make ſuch frame, caſement, put up, hang the ſame, and put on all the faſtnings in a day, the price of the larger windows will then be,

| | s. | d. |
|---|---|---|
| 22 feet of quarter at two pence | 3 | 8 |
| 1 foot of board at three pence | 0 | 3 |
| Labour | 2 | 0 |
| 1 ſet of caſement ſquares at one ſhilling | 1 | 0 |
| 1 pair of caſement ſtays at three pence | 0 | 3 |
| 1 pair of ſix inch I-L hinges at ſeven pence | 0 | 7 |
| 1 pair of caſement faſtnings at two pence | 0 | 2 |
| 10 feet of glazing at 9*d.* the foot | 7 | 6 |
| Painting | 0 | 8 |
| | 16 | 1 |

The ſmaller windows requiring about *five* feet leſs of quarter, and about *four* feet leſs of glaſs, will be worth each, *twelve ſhillings and two pence* a piece.

The

The ſtairs are to be made with inch board, and the bearings of the ſame; whether the ſtairs be conſtructed as in plate VII, or as in plate X, the expence will be the ſame, both as to materials and as to workmanſhip; but if conſtructed as in plate XVIII, the expence will be a trifle more, as I ſhall explain in its proper place.

The cottages being *eight feet and eight inches* high, from floor to floor, there will in every ſtair caſe be required, *twelve* ſteps and *thirteen* riſers, in which will be neceſſarily uſed *ſixty-four feet* of board, *eighteen feet* of quarter, *fifty* tenpenny flooring brads, and *one hundred* of tenpenny nails; a man can work, ſet up, and finiſh ſuch a ſtair caſe in two days and an half; the price therefore of a ſtair caſe, will be as follows,

| | | | | | | |
|---|---|---|---|---|---|---|
| 64 feet of board at two-pence farthing | — | — | — | — | 0 | 12 2 |
| 18 feet of quarter at two-pence | — | — | — | — | 0 | 3 0 |
| Nails | — | — | — | — | 0 | 1 3 |
| Workmanſhip | — | — | — | — | 0 | 5 0 |
| | | | | | £1 | 1 5 |

Although I cannot recommend timber buildings, knowing them to be attended with many and great inconveniencies, particularly their being hot in ſummer and cold in winter; their being too liable to fire, and their being continually in want of repairs; yet as ſome Gentlemen may be deſirous of following the practice, I will give them the beſt advice I can, and this is no way better to be done, than by ſhewing the method of framing the front and end of the double cottage deſcribed in the tenth plate of this work. The ſcantling of the timber neceſſary for cottages of this ſort is but ſmall, the ſtrength of the building depending more on the mechanical conſtruction, than on the ſize and quantity of the materials.

All timber buildings muſt be ſupported on a brick or ſtone foundation of about two feet high above the natural ground, on this foundation muſt be laid the ſill A A, *in the firſt figure of the ſecond miſcellaneous plate*, which repreſents the framing of the ſouth ſide of the above mentioned cottages; into the ſill muſt be tenoned the angular poſts B B, and all the other upright ſtuds;

the ſill muſt be *ſix inches* broad and *three* thick, and as it will be difficult to procure timber long enough for the ſill to be of one piece, let it be ſcarfed or lengthened with a dove-tailed (*a*) joint; the ſtuds a a a, that form the jaumbs of the doors and windows, are to be *ſix inches* broad and *four* thick, all the others only *two inches* thick; the braces b b b, to be alſo *ſix inches* by *four*; the angular poſts, B, B, ſhould be in one length from top to bottom, and *ſix inches* ſquare. The girder C C to be tenoned, at each end, into the upright poſts with a *dove-tail'd* (*b*) *tenon*; and ſcarfed with an indented (*c*) joint; this girder to be *ſix inches* ſquare, and its office is to ſupport the floor of the chambers; the ſtuds a a a, in the lower tier, are tenoned both into the ſill, and into the under ſide of the girder; the other ſtuds only into the ſill, as cutting ſo many mortices in the girder would weaken that piece of timber too much; but to ſupply the place of a mortice, let there, between every two ſtuds, be tightly driven a piece of inch board and nailed to the under ſide of the girder, as expreſſed by the dotted line; the ſame muſt be done both on the upper and lower ſides of the braces as mortices to the ſtuds, that reſt on thoſe pieces; the office of the braces is not only to keep the framing ſteady, and prevent its rocking from end to end, but alſo to admit ſtuff of almoſt all lengths to be made uſe of; and here I caution the builder always to place the braces leaning towards the middle of the work, and not be guilty of that too frequent an error of placing them the contrary way, as I have ſhewn by the dotted lines x x in the upper tier. The wall plate D D, which in theſe buildings is more properly the architrave, to be *four inches* thick, ſcarfed as the girder, and dove-tailed (*d*) its whole depth

(*a*) *A dove-tailed joint.* As expreſſed by the 11th figure of the firſt miſcellaneous plate, at the letter A:

(*b*) *A dove-tailed tenon*, ſee fig. 3, miſcellaneous plate 2, where A is the girder, B the upright angular poſt; at the end of the girder muſt be made the dove-tail tenon a b c d, the mortice b o p c muſt be cut through the poſt ſo much longer, than the girder is high, that when the dove-tail is in its place, there will be an hole a d p o through the poſt above the girder; into this hole muſt be driven, tightly, the wedge C, which will always confine the tenon in its place.

(*c*) *An indented joint.* This is the ſtrongeſt and beſt way of ſcarfing I ever ſaw, or can think of, and is explained by the fourth and fifth figures of the ſecond miſcellaneous plate. Fig. 4 repreſents the pieces of timber cut into the proper ſhape, but not joined; the length a b muſt be about two inches ſhorter than c d; and g h as much ſhorter than e f; ſo that when joined, *as in fig.* 5, there will be left the ſquare hole B, through this hole muſt be driven a double wedge, which will force the points a and h, into the angles c and f, and the beam will thereby become full as ſtrong, as if it was in one piece.

(*d*) *Dove-tailed &c.* This is explained by fig. 6 and 7 in the ſecond miſcellaneous plate, where a a a a denote the head of the poſt, with a proper dove-tail mortice and ſhoulder; and A, in fig. 7. is the dove-tail of the wall plates.

depth into the heads of the angular poſts; the ſtuds a a a, in the ſecond tier, are to be tenoned both into the girder and into the architrave, but the others only into the girder, and ſecured at top as thoſe in the lower tier; the ſecond figure of this plate repreſents the framing of the ends, and needs no further explanation, than that the timbers A A, and B B, are to be tenoned into the angular poſts with a *dove-tailed* tenon, and the timber C C, tenoned into the ſame poſts with a common tenon; this piece may be placed either higher, or lower, at the diſcretion of the builder, as its uſe is chiefly to give an opportunity of uſing ſhort ſtuff.

The roofs of theſe buildings differ from thoſe of ſtone or brick buildings, as their office is as much to keep the oppoſite ſides of the building together, as to cover the cottages, and muſt therefore be framed with principal rafters, as expreſſed by *fig.* 8, *miſcel. plate* 2, where A is the girder, or ſpan beam; B B, the principal rafters; both girder and rafters are *ſix inches* by *four*; the rafters to be abutted into the girder as at C, and halved together at the point; care muſt be taken that the toe of the rafter at b, be within the upright of the inſide of the framing; into theſe rafters muſt be framed purlines of *ſix* by *two*, as at c c; and at the point, between each pair of principals, muſt be a ridge piece of quarter *four inches* ſquare, as at D, the upper ſides of which muſt bevel with the rafter, but the under ſides ſquare the one to the other; theſe ridge pieces muſt be ſupported by a ſmall collar o o; on theſe purlines and ridge piece lie and are nailed the ſmall rafters of *three* inches ſquare; the roofs muſt be always hipped at the ends, and the wall plates tied at the corners with angular braces, as in *fig.* 7, *miſcel. plate* 1, the hip rafter ſerving as a brace to keep the whole roof ſteady; the girders at the ends muſt be calked down (*e*) into the wall plate with an *hidden dove-tail.*

The floors will differ from that in *the eighth figure of the firſt miſcellaneous plate*, in nothing but that the ends of the joiſts muſt be calked down to the girder, as the girders of the roof are calked down to the wall plate; and leſt the ends of the joiſts ſhould riſe, it will be neceſſary to

(*e*) The method of calking with an hidden dove-tail is thus: Let fig. 7, in miſcel. plate 2, be the wall plate; on the upper ſide of this make a dove-tail mortice about two inches deep, as at C, with the ſhoulder a b c d; on the under ſide of the girder D, fig. 9, cut the dove-tail P; let this dove-tail be driven down into the mortice C, and the operation of the whole will be readily ſeen.

to faſten them with a large ſtaple drove over them into the girders; but great care muſt be taken not to let the ſtaple paſs through the joiſt into the girder, as that would entirely deſtroy the operation of the dove-tail, whoſe office is manifeſtly to keep the ſides of the building from ſpreading, both by theſe joiſts of the floor, and by the girders of the roof; from hence will appear the reaſon of ſcarfing the architrave and girder with an indented joint, becauſe that method of ſcarfing reſiſts the pull or thruſt both lengthways and breadthways, whereas a dove-tail ſcarf, as in the ſill, reſiſts only the pull lengthways.

PLAISTERERS WORK. There is ſo little a quantity of work in this branch required in building theſe cottages that it will not be worth the while of a Gentleman to provide the materials, every country plaiſterer having in general by him a ſufficient quantity to perform the work at *ten pence* the yard for ceilings, including laths and nails; and *five pence* a yard for plaiſtering on walls.

TILER'S WORK. There is no branch in the building buſineſs, except the paviours, that admits of ſo great a variety as this, but there is none of greater conſequence, nor that requires a greater ſkill in the workman, for which reaſon, the workmanſhip is always by the great. The materials made uſe of in this neighbourhood, are either *ſtone tile*, *corniſh ſlate*, *pantile*, or *thatch*; firſt then of the *ſtone tile*, one waggon load will do a perch of work, conſiſting of two hundred and twenty-five feet, or two ſquares and a quarter; at the quarry a load will coſt *eighteen ſhillings*; the carriage *ſix ſhillings*; the workmanſhip *nine ſhillings and ſixpence*, the laths *one ſhilling and ſixpence*; pins and nails *three ſhillings*; and mortar *two ſhillings and ſixpence*, in all, *two pounds and ſixpence* the perch, or *eighteen ſhillings* the ſquare.

Of the corniſh ſlate, fifteen hundred will do a perch, and at the ſea-port will coſt *fifteen ſhillings* the thouſand; the carriage *five ſhillings* the thouſand; the dreſſing and laying on, *ten ſhillings and ſixpence* the perch; and the nails, laths and mortar, the ſame as the ſtone tile, in all, *two pounds ſeven ſhillings and ſixpence* the perch, or *twenty-two ſhillings* the ſquare.

Of the pantiles *one hundred and fifty* will do a ſquare; to the ſame quantity, will be required *ten*, *ten feet* pantile laths, and *one hundred* of ſixpenny nails; the tiles are worth on the ſpot

ſpot *ſix ſhillings* the hundred; and the laths *two ſhillings the dozen*; and *three ſhillings* for the ſquare is the price of workmanſhip, ſo that the price of a ſquare will be *fourteen ſhillings and two-pence.*

THATCH is of two kinds, one with haulm, or ſtraw that has not been thraſhed, but the ſheaves of wheat firſt combed with an iron toothed comb made for that purpoſe, and cleared from all ſhort ſtraws, from weeds and graſs, and then the ears cut off with a ſharp ſicle; the other with ſtraw that has been thraſhed. Of the firſt kind, eight ſheaves of haulm at *ſix ſhillings* the dozen; *one pound* of rope yarn at *ſix-pence* the pound; *one hundred* of fourpenny nails; and *one hundred* of *three feet* laths at *ſixteen pence* the hundred, will do a ſquare; the workmanſhip of which will be *two ſhillings and ſix-pence*, making in the whole *nine ſhillings and ſix-pence.*

Of the ſecond kind, a ton of ſtraw will cover ſix ſquare; and ſtraw is worth about *twenty ſhillings* the ton; ſo that the ſtraw, for a ſquare, will coſt *three ſhillings and four-pence*; but in every other reſpect the expence of covering with ſtraw is the ſame as covering with haulm. The firſt kind of thatching has this advantage, that it will laſt *twenty five* or *thirty* years, whereas the ſecond kind will require renewing every *twelve* or *fourteen* years, and there is but *eight-pence* difference in the price. The weekly wages of a thatcher and his boy are *ſeventeen ſhillings.*

In countries where brick is the building material, the tiles are burnt ones, commonly called plain tiles. To cover a ſquare, at a *ſix inch* gauge, it will require *ſeven hundred and ſixty tiles*, at *twenty ſhillings* the thouſand; *one* bundle of laths at *one ſhilling*; *five hundred* threepenny nails, a peck of pins at *eight-pence*; *two* buſhels of lime at *ſix-pence* the buſhel; and *five* buſhels of ſand at *two-pence* the buſhel; one day's work for a bricklayer at *two ſhillings and ſix-pence*, and one day for his labourer at *eighteen-pence*; ſo the price of a ſquare will ſtand thus,

| | | | |
|---|---|---|---|
| 760 tiles at two ſhillings the hundred | 0 | 15 | 2 |
| 1 bundle of laths | 0 | 1 | 0 |
| 500 of nails at three-pence | 0 | 1 | 3 |
| A peck of pins | 0 | 0 | 8 |
| 2 buſhels of lime | 0 | 1 | 0 |
| 5 buſhels of ſand | 0 | 0 | 10 |
| Labour | 0 | 4 | 0 |
| | £1 | 3 | 11 |

PAVIOURS WORK. Although this branch will admit of ſo great a variety, I ſhall confine myſelf to the paving proper for cottages, the rag-tile is generally made uſe of, and is worth *one ſhilling* the yard, materials and work included; there is a kind of plaiſter floor much uſed in countries where lime and coal aſhes are in plenty, it is a very good floor, and may be made for *nine-pence* the yard; where brick is the material, *thirty-two* will pave a yard ſquare, if laid *flat ways*, and *forty-eight* if placed on *the edge*, and will be worth *four-pence* the hundred for laying, ſo that if bricks is *twenty ſhillings* the thouſand, a yard of paving flatways, will coſt about *one ſhilling*; and *fifteen-pence halfpenny*, if laid edgeways. Near the ſea coaſt they pave with a ſmall pebble, that makes very neat work, and may be done for *one ſhilling* the yard; flints alſo make no bad pavement, and ~~is~~ are very cheap.

A

# SERIES of PLANS for COTTAGES, &c.

## CLASS the FIRST,

CONTAINING

## PLANS of COTTAGES consisting of one Room.

### PLATE I.

NUMBER 1. is the most simple cottage of any, being nothing more than a room, B, *twelve feet* square, and *seven feet and an half high* to the underside of the wall plate; with a porch, A, *five feet* long by *three feet eight inches* wide. The situation of the bed is marked with an asteric; the chimney is placed in the angle; and the flew of it brought round to the back, and carried up in a gable end; the cottage fronts the east, and receives its light from the south.

Number 2. is the same cottage, having one shed, A, instead of a porch; another shed, C, for a pantry; and the conveniency, D; the width of these sheds is determined by the pitch or declivity of the roof of the cottage; under the eaves of which the roofs of the sheds finish; and their width in this and in other plans, where the whole of the cottage is on the ground floor, is *three feet eight inches* in the clear; the entrances of these sheds are level with the ground, and out of them you ascend into the cottage by steps made in the thickness of the wall; this cottage I suppose to front either the south or the east, and to receive its light from that point to which it fronts; the flew of the chimney of this as well as of the foregoing cot, are brought up in a gable end at the back fronts, and the roof in the fore front is to be hipped.

Number

Number 3. repreſents two of theſe cottages joined together; and I ſuppoſe them to receive their light from the ſouth; the chimneys are placed back to back, from whence ariſes, as well the great conveniency of having cupboards or ſhelves on each ſide of them, as the ſaving of materials.—The pantrys c. c. muſt in this caſe be placed behind.—Theſe cottages, with a piece of ground for a garden, would ſerve a ſingle man, or a ſingle woman; or two women, or a man and his wife, either without a family, or with one or two children.

I am well ſatisfied that it would be œconomy to build in moſt pariſhes a row or rows of theſe ſmall cots. There are many poor who want only a dwelling at a low rent, and if the pariſh would at ſuch low rent render the induſtrious labourer a warm, comfortable, and healthy habitation, it would be a means often times to keep him from wanting other parochial relief. The poor pitiable widow alſo, with three or four ſmall children, could ſhe live rent free, would be enabled, with a little other aſſiſtance, to breed up her family; and the impotent poor, if provided for in like manner, might live comfortably on a very ſmall weekly allowance.

Of this truth the Magiſtracy of the Borough of St. Ives, in Cornwall, were ſo well convinced, that they have erected a building from a plan of mine, containing ſixteen dwellings for their impotent poor; beſides a very commodious apartment for a pariſh officer to inhabit, whoſe buſineſs is to inſpect the conduct of the paupers, and to ſee that the whole building be kept in a clean and decent order; the plan of this building I ſhall give in the fourth plate, with a full deſcription of the ſame.

The ſtone of Cornwall, with which they build, is either a kind of granite called the moor ſtone; or a very hard ſtone, called the iron ſtone; both ſo hard as with the greateſt difficulty to be wrought into ſhape, and therefore with it they cannot build walls leſs than two feet thick; both theſe kinds of ſtone, as is the caſe with all hard ſtone, give, or are wet in moiſt weather; and therefore makes all habitations built with them unwholeſome, on this conſideration I recommended lining the walls with brick, and to build all the thin partitions with the ſame materials; and tho' bricks were ſo dear at this place, that to uſe them would increaſe the

expence

expence of the building full ten per cent. yet the committee, a ſtriking inſtance of their humanity, adopted my recommendation, declaring "they would build habitations for their "poor, ſuch as were fit for human creatures to dwell in, and reſcue them from the miſerable "huts they were at preſent obliged to put up with." The expence of this building, agreeable to contract, was five hundred and fifty pounds.

## PLATE II.

In this plate the length of the cottages is increaſed to *ſixteen* feet, the advantage of which is apparent from inſpection. In numbers 1 and 2, the eaſt and weſt ends are gable ends, and the chimney is placed in the eaſt end of each; although in number 1, it is a matter of indifference whether it be in the eaſt or weſt end; this number alſo varies from the ſame number in the firſt plate, by having the addition of the pantry, C, and of the conveniency, D. Number 3, is two of the cottages joined together.

## PLATE III.

Number 1. is the plan and elevation of four adjoining cottages; each two, has a common internal porch, A. and I ſuppoſe a ſmall garden or outlet behind each; a row of ſuch cottages is what I recommended in the deſcription of the firſt plate, to be built in moſt pariſhes, particularly in the manufacturing countries, for the accommodation of the induſtrious poor, at a low rent. I muſt here obſerve, that wherever rows of cottages are to be built, be it in town or country, care muſt be taken to have proper covered drains or ſewers to carry off the ſoil and filth; there being nothing ſo offenſive, not only to the public in general, but to the inhabitants of the cottages themſelves, as that too common and almoſt univerſal practice of throwing all the dirt and filth into the ſtreet, or highway before the doors of the houſes.

Number 2. is a row of dwellings, for the parochial impotent poor. Here A is a common internal porch to the rooms D and B. The room D is for the dwelling of a pauper, that is not ſo feeble, but can take care of him or herſelf; and the dwelling B, for a pauper that is able to take care of a more impotent one, that might be lodged for that purpoſe by the pariſh officers in

the adjoining room, C. Such an apartment as this would be very proper for a widow, with one or two children of her own, who might be entruſted by the pariſh with two or three orphan poor children, to breed them up, till they were of an age, proper to be bound apprentices. For theſe cottages there is no occaſion for the ſhed behind to ſerve for pantries, ſufficient for that purpoſe are the ſhelves on each ſide the chimnies. And as for the neceſſaries they are placed at each end at E, in a ſmall incloſure without a roof; nor will a garden or outlet be at all neceſſary.

## PLATE IV.

Figure 1. is the ground plan, and figure 2. the upper floor of the building now erected at St. Ives, for the accommodation of the impotent poor of that Borough; it is ſituate at the ſouth weſt corner of the town, at the foot of a hill that riſes pretty quick to the ſouthward, it is bounded on the weſt by a houſe and garden belonging to a perſon of the town, and on the ſouth and eaſt with ground belonging to Mr. Stephens, of Tregenna.

When I firſt took a plan of the ground, the ſouth weſt corner, C, the north weſt D, and the north eaſt F, ſtood as they do at preſent; but the ſouth eaſt corner was at H, which made the ſpot of ground very awkward; on application to Mr. Stephens, he generouſly gave ſo much ground as not only to make the eaſt front E F, parallel to the weſt front C D, and the ſouth front C E ſquare with, or at right angles to both, but alſo ground ſufficient to make the area to the ſouth.

The building conſiſts of eight rooms, of twelve feet ſquare on the ground floor, with the ſame number of equal dimenſions on the upper floor; together with the apartment marked A, and the chamber B over it, for the habitation of a proper officer to ſuperintend the paupers. G G, are two conveniencies, one for the men, and the other for the women. About ſixty yards up the hill, towards the ſouth, riſes a large ſpring of very fine water, the property of Mr. Stephens, who will permit the pariſh to convey in pipes, as much water from it, into a reſervoir, or baſon, in the middle of the court, as will abundantly ſupply the building. The eaſt front abutting on

building

building ground, I could not enlighten any of the rooms from that point. The four ſtair caſes communicate each of them to four rooms; the level of the court, is about two feet and a half above the road that leads from St. Ives to Penzance, and the floor of the lower rooms is ſixteen inches above the level of the court; the ſtairs are of moor ſtone, and the landing place I, I, I, I, in the upper floor, are all of the ſame materials; but the floors of the upper chambers are of deal, one inch and a half thick, grooved and tongued.

# CLASS the SECOND,

CONTAINING

## PLANS of COTTAGES conſiſting of two Rooms.

THIS claſs of cottages will admit of two different modes of diſtribution, that is, both the rooms may be on the ground floor, or may be placed the one above the other; of each mode in order.

### PLATE V.

Number 1. This cottage is twenty-one feet long in the clear, of which ſpace the room, B, occupies twelve feet and ſix inches; and the bed room, C, eight feet; the entrance is ſkreen'd with a porch, A; and behind is the ſhed, D.

Number 2. is twenty-five feet long in the clear, the room, B, and the bed room, C, are each ten feet wide; the porch A being on the inſide, makes a very convenient receſs E for a bed, which in this ſample is thrown open to the bed room C, the moſt proper ſituation for a bed for ſmall children; and behind is the ſhed, D, for a pantry.

Number

Number 3. This cottage is twenty-nine feet long in the clear, the rooms B, and C, are both twelve feet ſquare; the internal porch, A, occaſions the receſs, E, as in number 2, but in this ſample the receſs is thrown into the room, B, inſtead of the bed room, C, for the ſleeping place of an adult; the ſhed, D, is here likewiſe added.

Number 4. This is alſo twenty-nine feet long, but the rooms B and C, being only ten feet wide, makes the bed place, D, larger than in the preceding plans, and it muſt have a window, and of conſequence the ſhed behind cannot extend the whole length of the building, but muſt be in two parts, as E for a pantry, and F to contain the privy and a ſtore place for the fuel; the roofs of theſe ſheds may be hipped.

## PLATE VI.

Number 1. Repreſents a double cottage of this ſecond claſs; I have choſen to adjoin two of the firſt number in the laſt plate a little enlarged, in order to give room for a bed in the room, A, and to ſhew in the front how the porch, inſtead of being placed on the plinth, as in the ſample aforementioned, may ſtand on the ground, and the aſcent into the cottage to be by ſteps in the thickneſs of the wall. It is very eaſy to imagine the effect of a double cottage of either of the three other examples. But a better method of building two cottages of this claſs is as,

Number 2. Where I have made an internal porch, as a common entrance to both cottages; this porch cauſes a very convenient receſs, B, for a bed, as in numbers 2 and 3, in the laſt plate.

Theſe are all the varieties of diſpoſition that cottages conſiſting of two rooms both on the ground floor, will admit of.

## PLATE VII.

Number 1. is nothing more than number 2, in the firſt plate, with the addition of an upper floor, and of the ſtairs; as the ſituation of the chimney and doors will not admit of a place for a bed in the lower room, this cottage will ſuit only an artificer, with a wife, or a wife and ſmall child,

child, who can afford to give a little more rent than the inhabitants of the preceding cottages, ſuch as maſons, bricklayers, thatchers, plaiſterers, and many others who earn twelve or fifteen ſhillings per week; it will alſo ſuit many artificers in ſeveral branches of the manufactories, who are obliged to do their work at home; and it will be very proper for a turnpike houſe, or for a gate-keeper to any Gentleman's park.

Number 2. By placing the chimney as in this example, a bed may be very conveniently placed in the lower room, which will render this cottage commodious to a much larger family than could poſſibly inhabit the preceding one.

## PLATE VIII.

Here are two cottages adjoining of the example of No. 2, in the laſt plate, but attended with the ſmall inconvenience of leaving the pantry, B, leſs than in the ſingle one, but this is remedied by lengthening the cottage only three feet ſix inches, ſo as to have the ſtairs on the inſide, as in

## PLATE IX.

Thus by placing the ſtairs on the inſide we not only gain the advantage of having a large pantry, A, to the North, but of increaſing the entrance porch, B. On viſiting the hoſpital at Froxfield, in Wiltſhire, ſome time after the engraver had ſent me a proof of this plate, I was both ſurprized and pleaſed to find the apartments of that ſtructure to vary but a little from this deſign, the difference was in having the rooms thirteen feet wide inſtead of twelve, the external door from the court, a, C, having the partition that divides the ſtairs from the room, D, inclining, as repreſented by the dotted line a, b, ſo as to give room for the opening of the outward door, and by the omiſſion of the pantry behind.

## PLATE X.

Although the plan of the cottage in the foregoing plate is very proper for the country, where there is plenty of ground, yet in towns and villages, where that may not be the caſe, it is but

increaſing the length of the building eighteen inches, and it will make an internal porch, and give room for the ſtairs in a different form, and though there will not be convenient room for a bed below, yet this inconvenience is greatly compenſated by the receſs, A, in the chamber above; indeed by letting the ſtairs begin to riſe from the porch, A, on the ground floor, there may be room for a bed below, as in the foregoing plan, but this is only admiſſable in country villages, but not in large towns or cities, for reaſons I ſhall give in deſcribing the following plates; a number of theſe cottages built in villages would be of great ſervice, and though to private perſons they probably may not anſwer in regard to intereſt of money, yet if built at a parochial expence they would anſwer the purpoſe of accommodating the induſtrious labourer with a family at a ſmall and eaſy rent.

## PLATE XI.

Here I join four cottages together, and it is an eaſy matter to imagine a continuation of them to any number; theſe are proper for large towns or cities, in two of theſe plans the ſtairs from the lower room, A, begin to riſe at D, and will land at the chamber, C, above, which cauſes the door, E, to be near the head of the bed; but in the other two the ſtairs from the room, B, begin to riſe at F, which land at G, in the chamber, D, above, whereby the bed will be better ſcreened, but the builder may take his choice of either method. If theſe cottages are built in large towns or cities, by all means avoid letting the ſtairs begin to riſe from the porch ſo as to make room for a bed below, in order to prevent any avaricious inhabitant taking an inmate; an inconvenience felt by moſt pariſhes, though I muſt own there ſhould be ſome care taken to provide for ſingle perſons wanting lodgings; but more of this in deſcribing the cottages of the third and fourth claſs. In theſe dwellings, if it can be done, let there be an outlet or ſmall garden to admit of the pantry, C, the waſh place, B, the conveniency, P, which will keep the whole ſweet and wholeſome.

# CLASS the THIRD,

CONTAINING

## PLANS of COTTAGES consisting of three Rooms.

THIS class of cottages will admit of four different modes of distribution, 1st. All the rooms on the ground floor;—2dly. Two rooms below, and one above;—3dly. One room below, and two above;—4thly. The three rooms one above the other. The first mode of distribution will admit of no less than eleven variations.

### PLATE XII.

This plate contains two varieties of the first mode of distribution.

Number 1. is thirty feet long in the clear, of which the two rooms, D and G, take ten feet each, and the room, F, nine feet. The entrance to this cottage is on the north side at the porch, A, on one side of which is the store place, B, and on the other side the pantry, E. from the porch, A, you ascend into the passage, C, by two steps in the thickness of the wall.

Number 2. is thirty-four feet six inches long in the clear, of which the central room, B, takes twelve feet; the room, F, nine feet; the room, G, ten feet nine inches, and the remaining space is occupied by the wall and partition. The entrance is on the east by the passage, A; the floor of the pantry, C, is level with the floor of the room, B, and this pantry may be made of any width you please. The roof is hipped into the roof of the main building, as shewn in the north front, D is the store place.

## PLATE XIII.

This plate alſo contains two other varieties of the firſt mode of diſtribution. The entrance of Number 1. is from the ſouth into the internal porch, A, which communicates to the rooms, B and C, each ten feet wide; from B, is the door not only into the pantry, E, but into the ſleeping room, D, which projects about three feet and ſix inches northwards, and its roof hipped into the roof of the main building, as ſhewn in the north front. This room is ſuppoſed to be a bed place for an adult, and the cloſet, F, is adjoining to it.

Into Number 2. you likewiſe enter from the ſouth, A is an internal porch of a larger dimenſion than any of the preceding, and communicates to the bed room, D, and into the room, B; a, is a receſs for ſhelves. The room, D, is ten feet wide, and the room, C, is of the ſame dimenſion; E is the pantry, and F the ſtore place, in the corner of which is intended a ſlew to go into the main ſtock.

## PLATE XIV.

Of the ſame mode of diſtribution here are two more varieties.

The room, B, in Number 1. is fourteen feet and a half long, and the entrance ſcreened by the porch, A; in the corner is a place for a bed. The bed room, C, is ten feet wide, and the room, D, eight feet; this room is placed behind, and lighted from the north, in order to ſerve for a work-ſhop, as well as a bed room, there being many branches, not only of the woollen, leather, cotton, and Mancheſter manufactories, as well as ſeveral others, in which the workmen perform their work at home, and require a ſtrong and ſteady north light. Should this cottage be intended for a weaver, the back room muſt be extended more to the northward.

Number 2. differs from the former, in having the porch, A, on the inſide; this reduces the room, B, to ten feet wide, and forms the receſs, d, for a bed, which may be either thrown to the room, C, as in this plate, or to the room, B, as in Number 3 of the fifth plate. In both plans, E is the pantry, and F the ſtore place.

## PLATE XV.

Numbers 1 and 2 of this plate cannot be ſo properly called varieties, as improvements on the two examples in the laſt plate, viz. by enlarging the room, D, putting a fire place in it, and altering the ſituation of the chimney in the bed room, C, by placing it further from the bed. In the north front, inſtead of hipping the roof of the projecting room, it is carried up as a gable end. Number 3 is but a ſimilar improvement of Number 2 in the thirteenth plate, the ſouth front of which is the ſame with this; and the ſouth front of the two in the laſt plate, are the ſame with the correſponding ones in this plate.

## PLATE XVI.

Number 1 is two of the cottages given in Number 1, Plate 13, and joined together. I have only increaſed the width of the bed place, D, and made the entrance into it from the room, C, as I ſuppoſe it to be the bed place of girls or of children who ſhould be more immediately under the care of the mother; o, ſhews where a flew may be placed to be drawn into the ſtock.

Number 2. is a plan for two adjoining cottages on an entire different conſtruction from the foregoing, and I think more convenient. On this plan a regularity of Front can be preſerved, which cannot be done in a ſingle cottage. Here is an internal porch, A, that communicates to the chamber, D, and to the room, B, and makes the uſeful receſs, d. From B, you go into the chamber, C; the pantry, E, is conſtructed as in No. 2, Plate 12, except in the receſs, g, where may be placed a flew.

## PLATE XVII.

Number 1. is the only example I can give of this third claſs of cottages, according to the ſecond mode of diſtribution, that is, with two rooms below and one above, and it needs no further deſcription, than that the entrance is at the ſide at A, which leads to the room, B, adjoining to which is the chamber, D, and over B, is the chamber, E. C is the pantry.

Number 2. This is alſo the only example of the third claſs of cottages according to the third mode of diſtribution, but I am of opinion would prove the moſt uſeful dwelling of any, as it admits conveniently of room for three beds. This cottage I make ſixteen and a half feet long in the clear; A is the entrance porch, C the pantry, and B the dwelling room; the ſtairs are ſix feet ten inches by ſix feet, and being placed directly in the middle of the back Front, gives ſufficient room to get up to the upper or chamber floor, and by making a ſtep in the thickneſs of the wall above, there will be ſufficient head room for the ſtairs to be covered with a ſkeeling roof. The upper floor is divided into two rooms by a boarded partition. In the execution of this cottage and in the following ones of two rooms in the upper floor, and where the ſtairs are placed in the outſide—and are intended to be covered with a ſkeeling or ſhed roof, great care muſt be taken to obſerve the dimenſion of ſix feet ten inches by ſix feet, not only to give head room for the ſtairs, but to make a pier between the doors that lead from the ſtairs into the chambers ⁂. Although I here propoſe to have the ſtairs covered with a ſhed roof, I cannot but recommend the carrying of the walls of the ſtairs to the level of the walls of the cottage, and then hipping the roof into that of the cottage; in this caſe there will be no occaſion for the ſtep in the thickneſs of the wall, but the wall may be thinned as in No. 2. Plate 13. or as expreſſed by Fig. 3. in the miſcellaneous Plate, ſtill the ſtairs muſt be ſix feet ten inches by ſix feet; but you muſt begin with a winder, and land above in the ſame manner.

## PLATE XVIII.

In this plate two of the foregoing cottages are joined together, in which caſe the pantries C C, will be on each ſide of the ſtairs.

## PLATE XIX.

In this example of the two adjoining cottages of the third claſs, I omit the ſhed at each end, and make the cottage nineteen feet long, inſtead of ſixteen and a half in the clear; here then will be an internal porch, A, which admits of a receſs for a bed in the lower room, which will render the upper chambers larger; c the waſh place, m the flew, d the pantry. It will be

moſt

moſt convenient to make that which has the fire place in it, larger than the other, for many obvious reaſons, as ſhewn in the plan. Care muſt be taken to place the middle of the ſtairs to anſwer exactly with the partition above, to give room for the doors into the chambers, and the pier between them.

## PLATE XX.

An example of a ſingle cottage according to the fourth mode of diſtribution, would be prepoſterous in the elevation, ſo that I only give an example of two ſuch cottages adjoining each other, ſuited for the country. The plan explains itſelf, only I muſt obſerve that in the upper floor there are no fire places, nor are they wanted. The breaks in the party wall are to receive the flews of the chimneys below, in order to bring them regularly out above the roof.

## PLATE XXI.

In cities and large towns I cannot but think that a row of ſuch dwellings as are deſcribed in this plate, would be of great ſervice, if built at a parochial expence, to accommodate ſuch of their labouring workmen who are pariſhioners, and can afford to give a moderate, though not an extravagant or large rent for their habitations. The entrance is by an internal porch, A, five feet nine inches deep by ſix feet wide; the ſtairs, which are ſix feet ſquare, communicate diſtinctly to both the upper chambers, in which the receſſes over the porch afford good room for a child's bed.

It is very apparent that the approach to the ſtairs may be from the porch, A, inſtead of being from the room, B, in which caſe this building would become three diſtinct habitations; a circumſtance to be avoided, in order to prevent an avaricious tenant taking in inmates, and thereby defeat the end of accommodating an induſtrious workman.

# CLASS the FOURTH,

CONTAINING

## PLANS of COTTAGES conſiſting of Four Rooms.

WE are now come to the largeſt ſize cottages; there are only two methods of placing the rooms of this claſs, and that is either, firſt, all the rooms on the ground floor; — or, ſecondly, two rooms below and two above.

### PLATE XXII.

Number 1. is of the firſt mode of diſtribution. This cottage is forty-nine feet ſix inches in the clear, the bed rooms, B and E, eleven feet each, and the bed room, C, nine feet; the dotted lines in this room ſhew where a ſcreen or partition may be placed; H the paſſage to the waſh place F, with the ſlew m, as alſo to the pantry G, in which *a* is a receſs for a cupboard.

Number 2. is of the ſame extent in the clear as Number 1. A an internal porch, D the dwelling room; C the bed room of thirteen feet ſix inches; B a bed room for children or girls, in which they will be under the care of their mother; E a bed chamber fit for an adult; F is the pantry; H the waſh place, to which you deſcend by two ſteps in the thickneſs of the wall; o the ſlew, g a ſtore place.

### PLATE XXIII.

This cottage differs from any of the former, in not having neither an external or internal porch. It is thirty-one feet in the clear, where A may be either the dwelling room, or it may

more

more properly be uſed as a work-ſhop ſuitable for ſome occupations, having an immediate acceſs to it from the ſtreet; in the former caſe F will be the pantry, and in the latter an appendage to the ſhop; B C D are bed rooms, and E a paſſage; G a waſh place, with the flew o, which may be drawn into the main ſtock.

## PLATE XXIV.

To this cottage is intended a garden behind; it is thirty feet ſix inches in the clear; the bed rooms, B and C, are eleven feet ſix inches each; the bed room, D, to the north, muſt be carried up as in plate 15; I a paſſage which communicates with the pantries F and H, and to the waſh place E, and the ſtore place G. The dotted lines ſhew where a ſcreen or curtain may be placed to divide the dwelling room, A, from the paſſage, to render it warm.

## PLATE XXV.

Each of theſe cottages are thirty-four feet in the clear; the bed room, C, ten feet; and the bed room, B, ſeven feet ſix inches. F is the pantry, and E the waſh place. D is a large bed room, in which one or two Females may lodge, and in that caſe b will be their conveniency, and a the conveniency for the males.

## PLATE XXVI.

This is the ſecond mode of diſtribution of the fourth claſs. In Number 1. there is no chimney in the bed room, C, but a pier or break to carry the fire place in the room above. D D is a pantry and waſh place, where *a a* ſhew the flews. The ſtaircaſe is placed in the back part, as in Plate 19, and muſt be carried up in the ſame manner, to give room for the doors to the bed rooms as well as the pier between them. Number 2. the internal porch, A, forms a receſs for the ſtaircaſe, alſo a leſſer one for a cupboard; D the pantry, b the flew. The ſtairs land above at the lobby or paſſage, E, which communicates to the bed rooms, L L.

## PLATE XXVII.

Is the plan of two adjoining cottages, in which there are not any porches, c being uſed as the dwelling room or work ſhop. This plan admits of three bed rooms; the ſtairs muſt be carried in the ſame manner as deſcribed in the laſt plate, Number 1. D is the pantry, and *b* a flew.

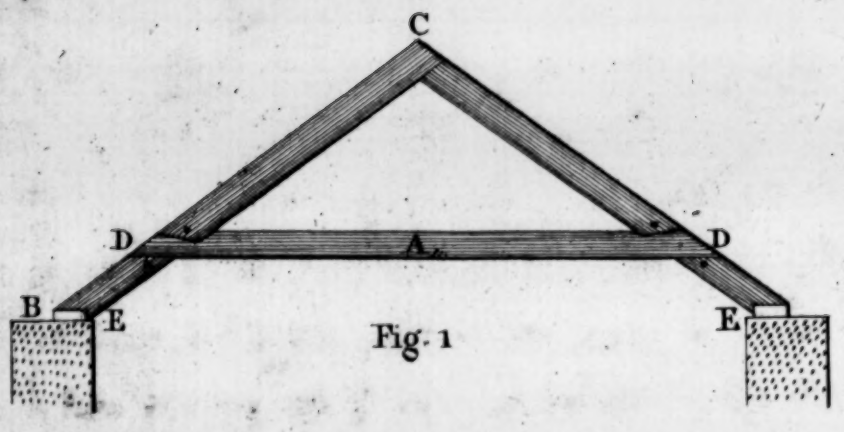
## PLATE XXVIII.

Is the plan of two adjoining cottages, the ſame as the example of the ſingle cottages, Plate 26, Number 2, with the difference of D being a pantry, and E the waſh place.

FINIS.

22 OC 25

# Miſcellaneous Plate. 1.

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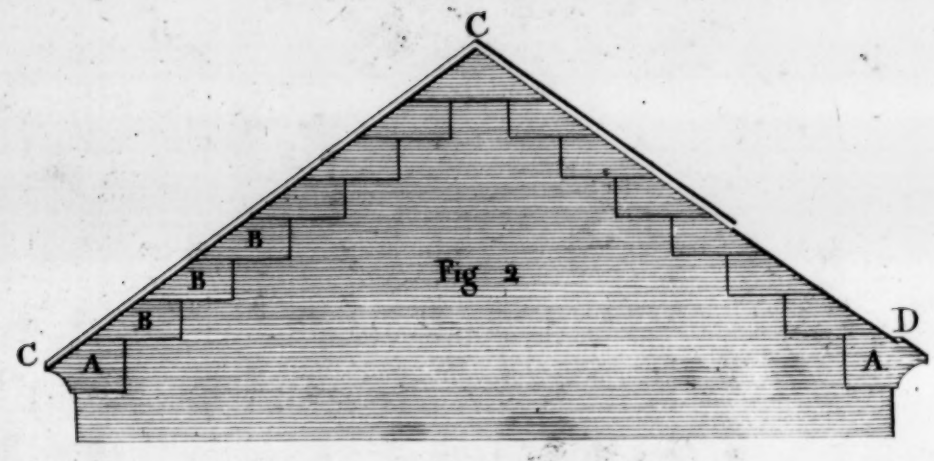



Fig 2

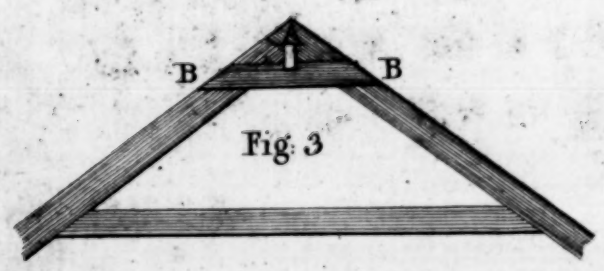
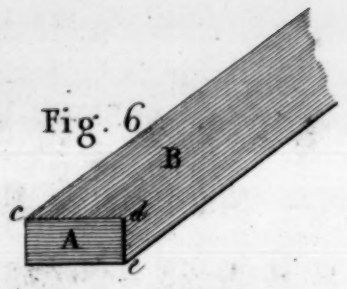



Fig. 3

Fig. 4

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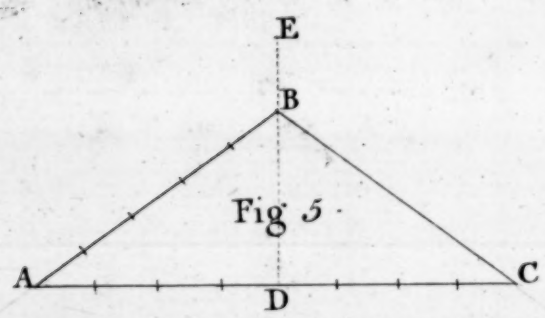


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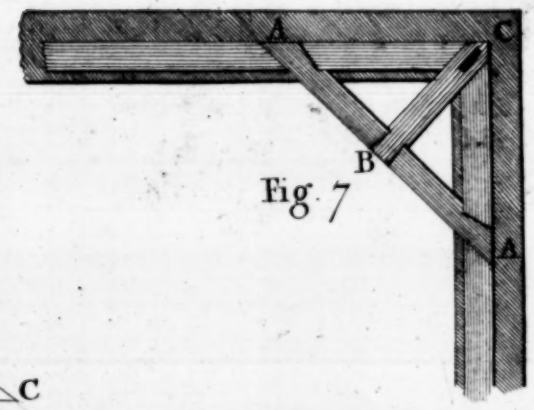


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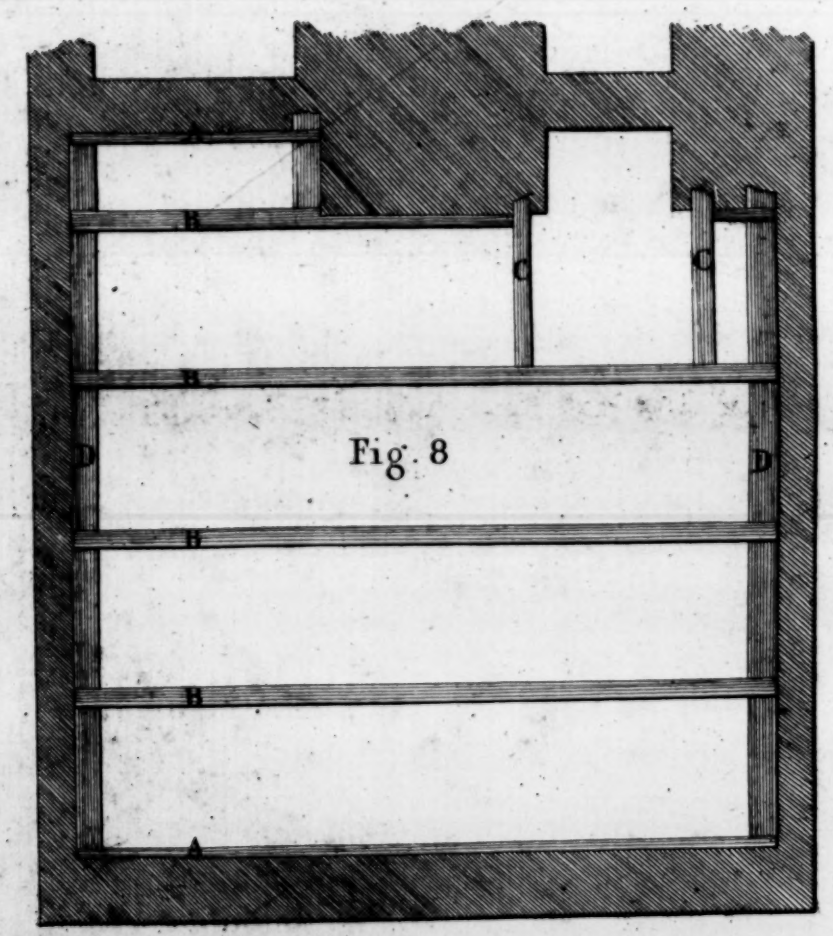


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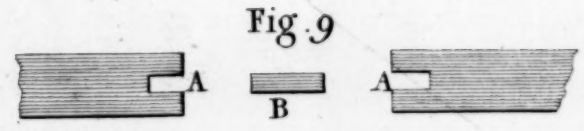


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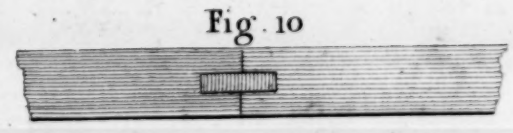

Fig. 10

Fig. 11

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*P. Begbie Sculp.t*

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# Miscellaneous Plate. 2.

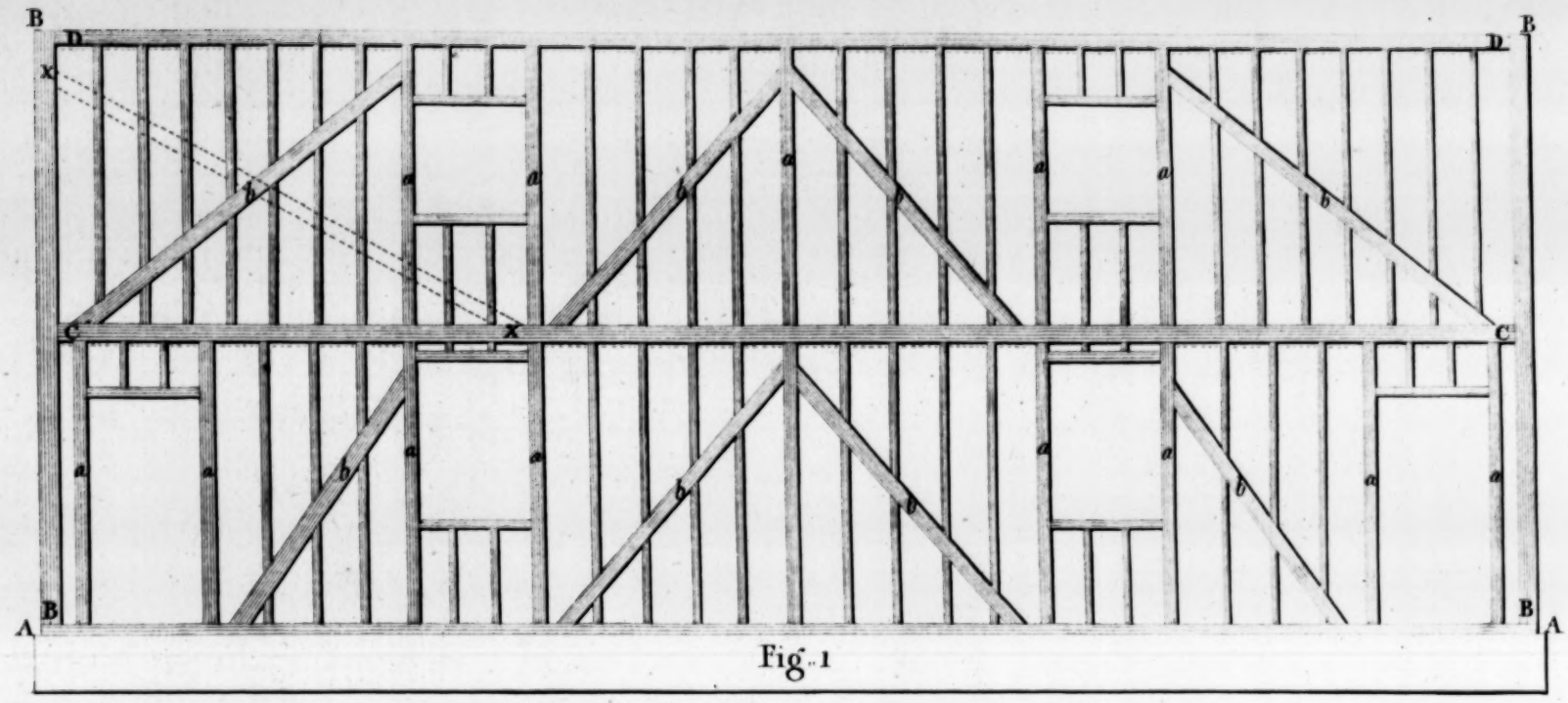
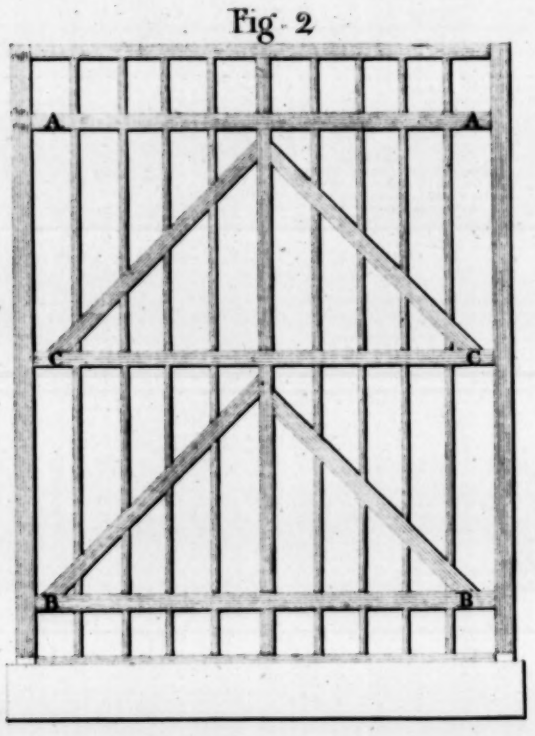



Fig. 1

Fig. 2



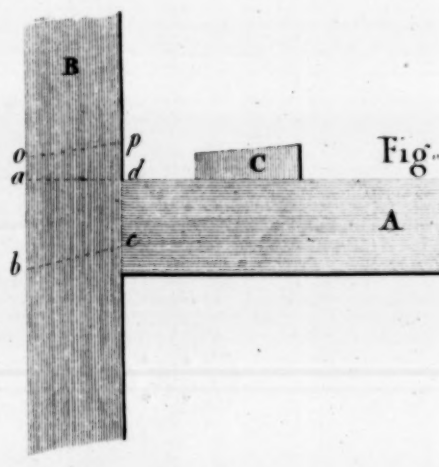




Fig. 3

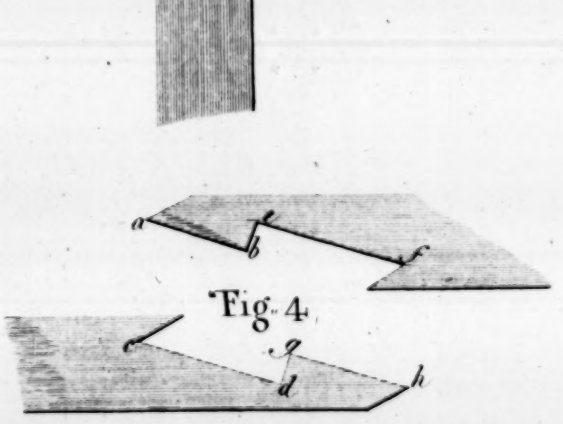
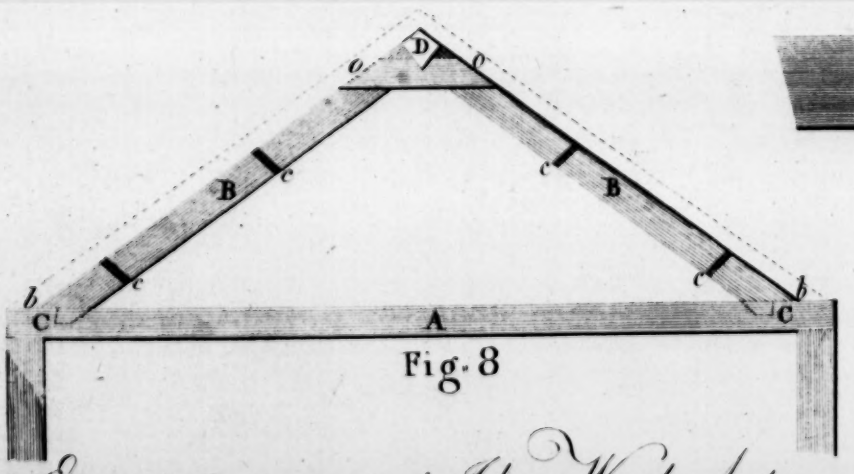



Fig. 4

Fig. 5

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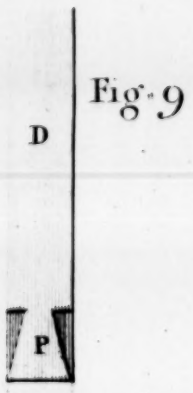


Fig. 9

Fig. 6

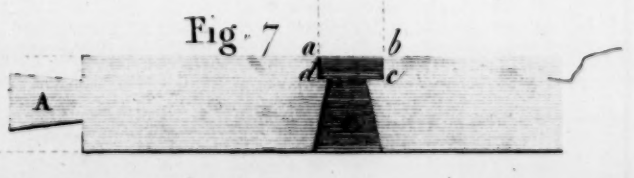


Fig. 7

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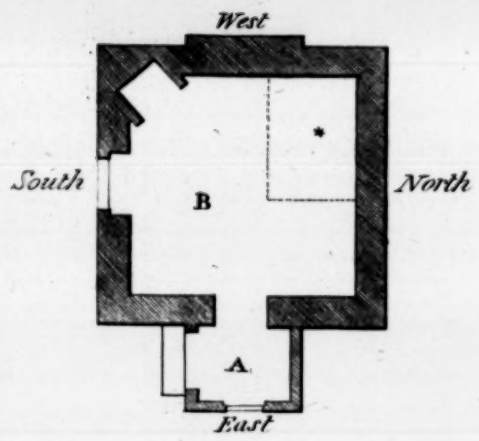


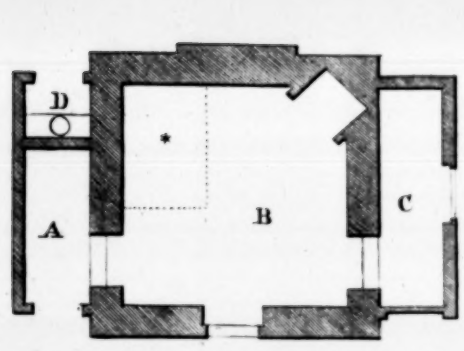


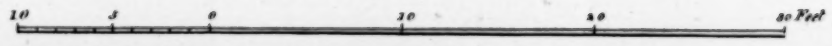

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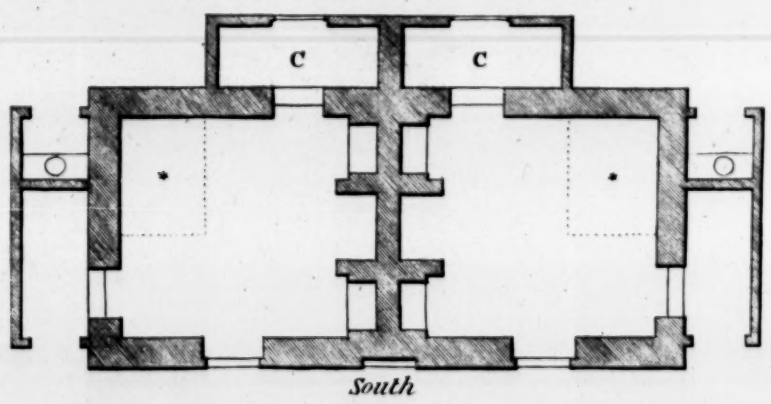


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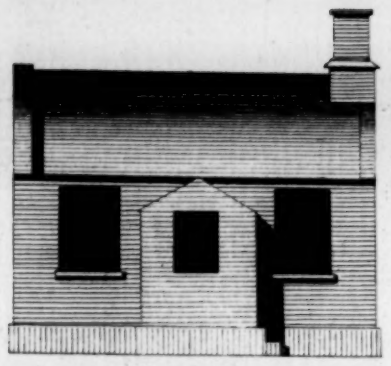

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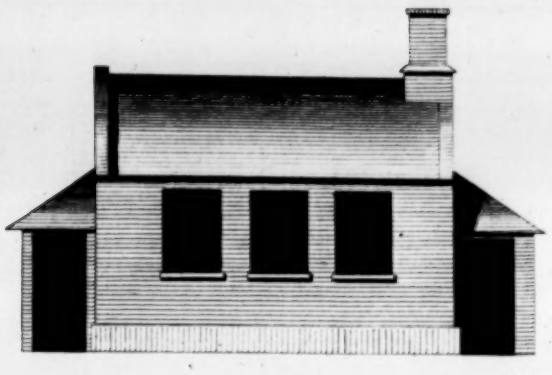

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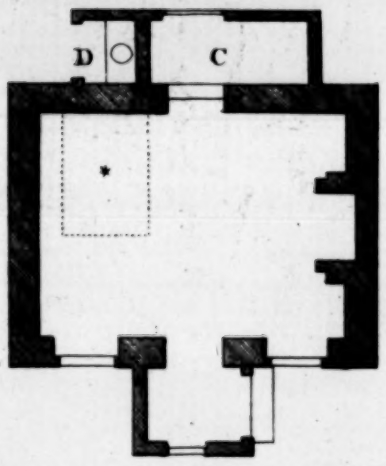


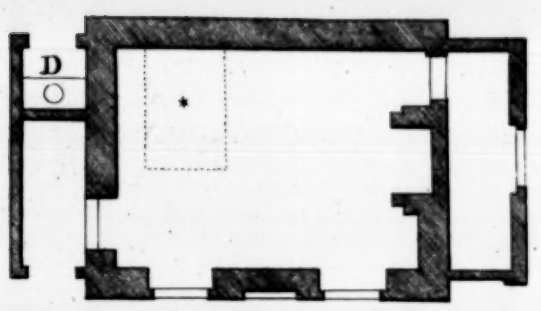


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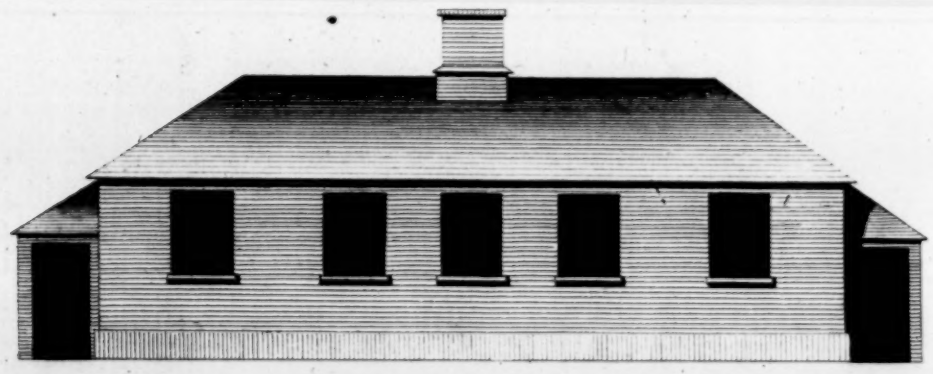

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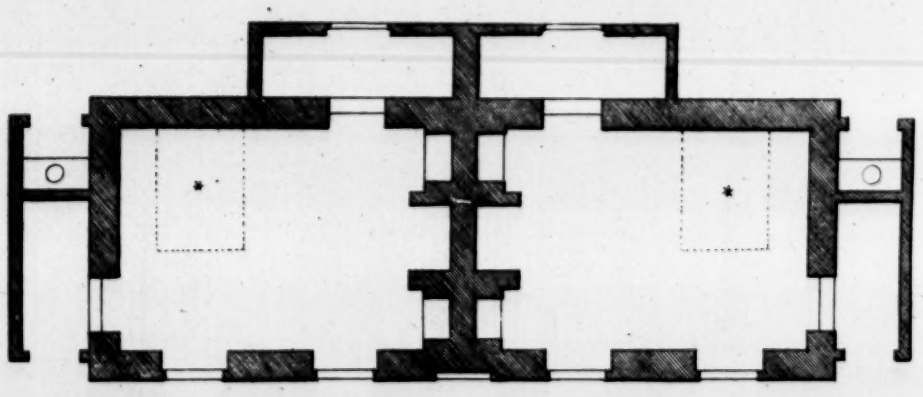

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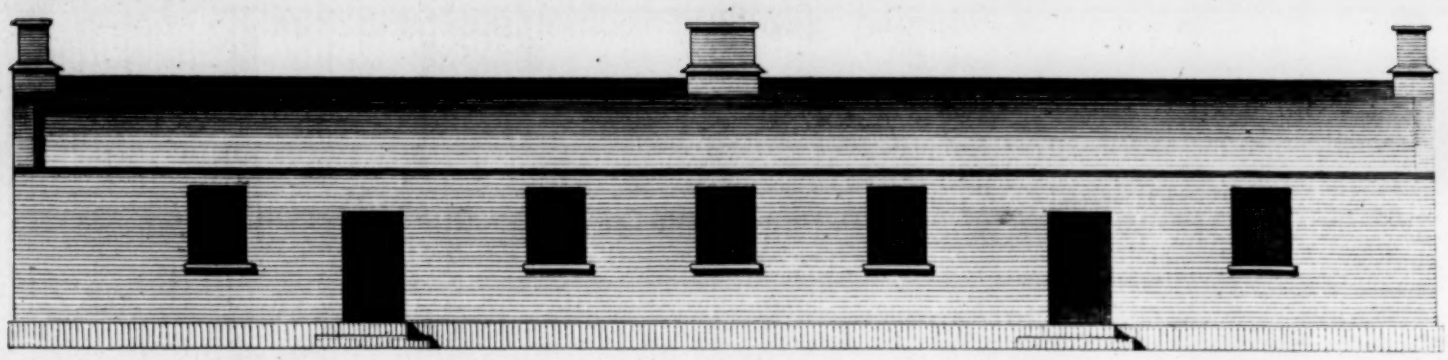

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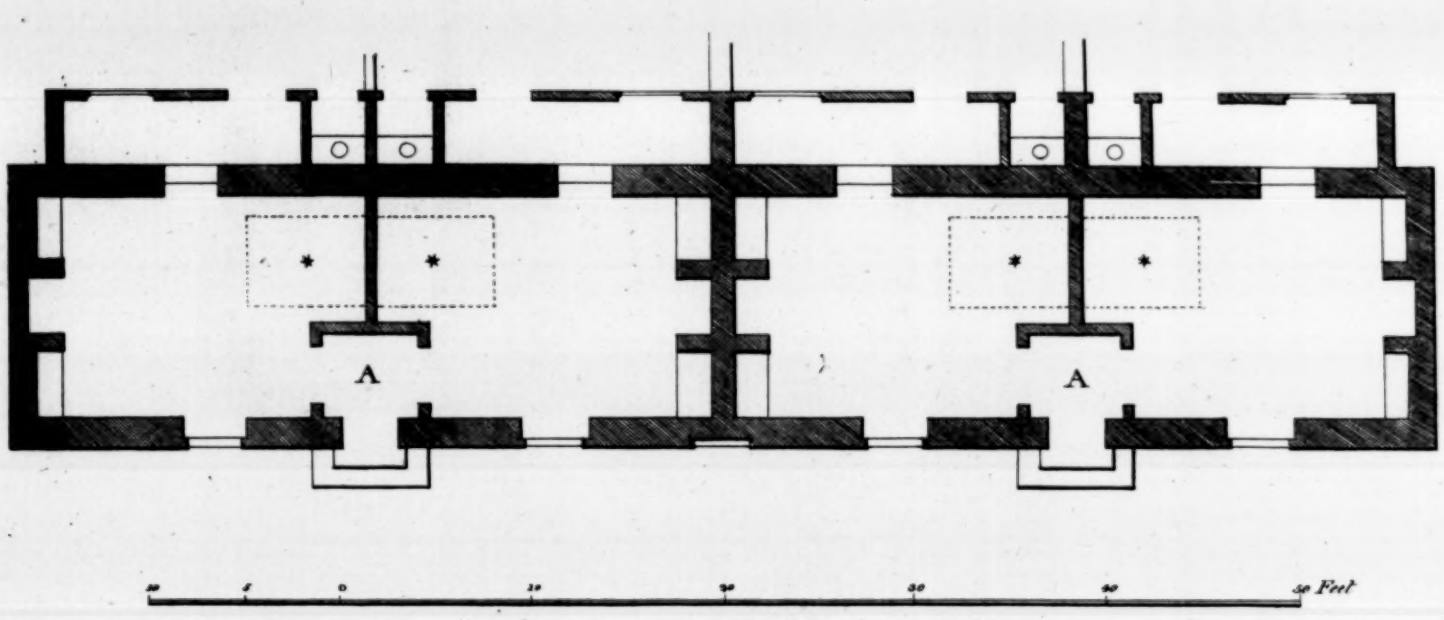


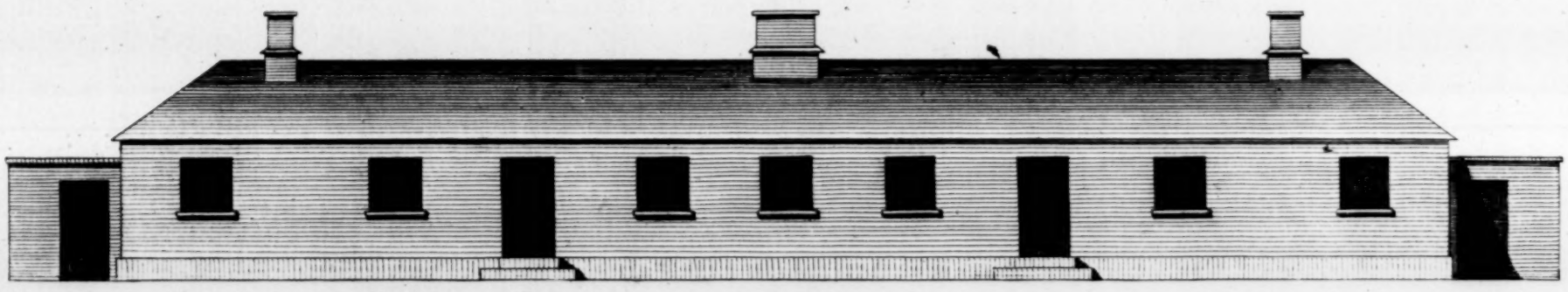

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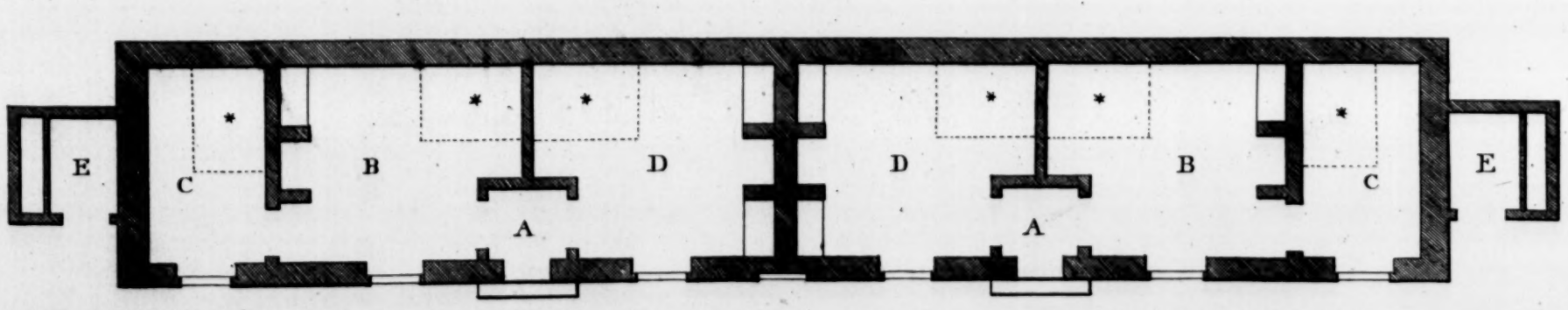


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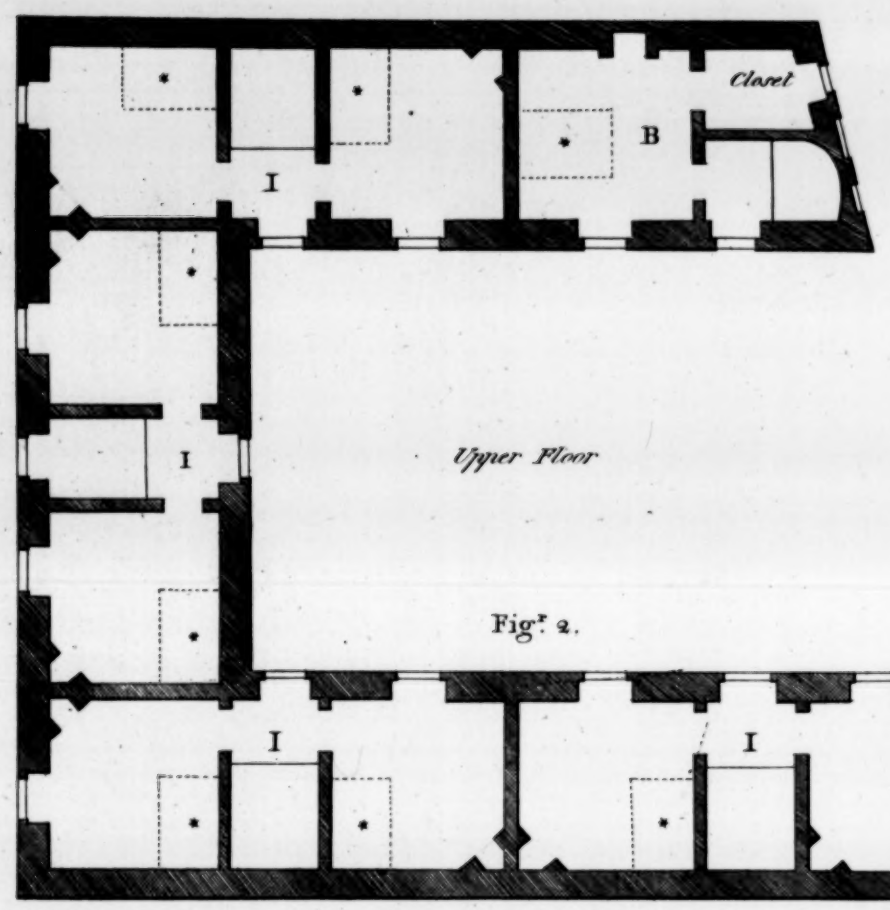


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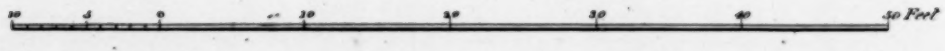


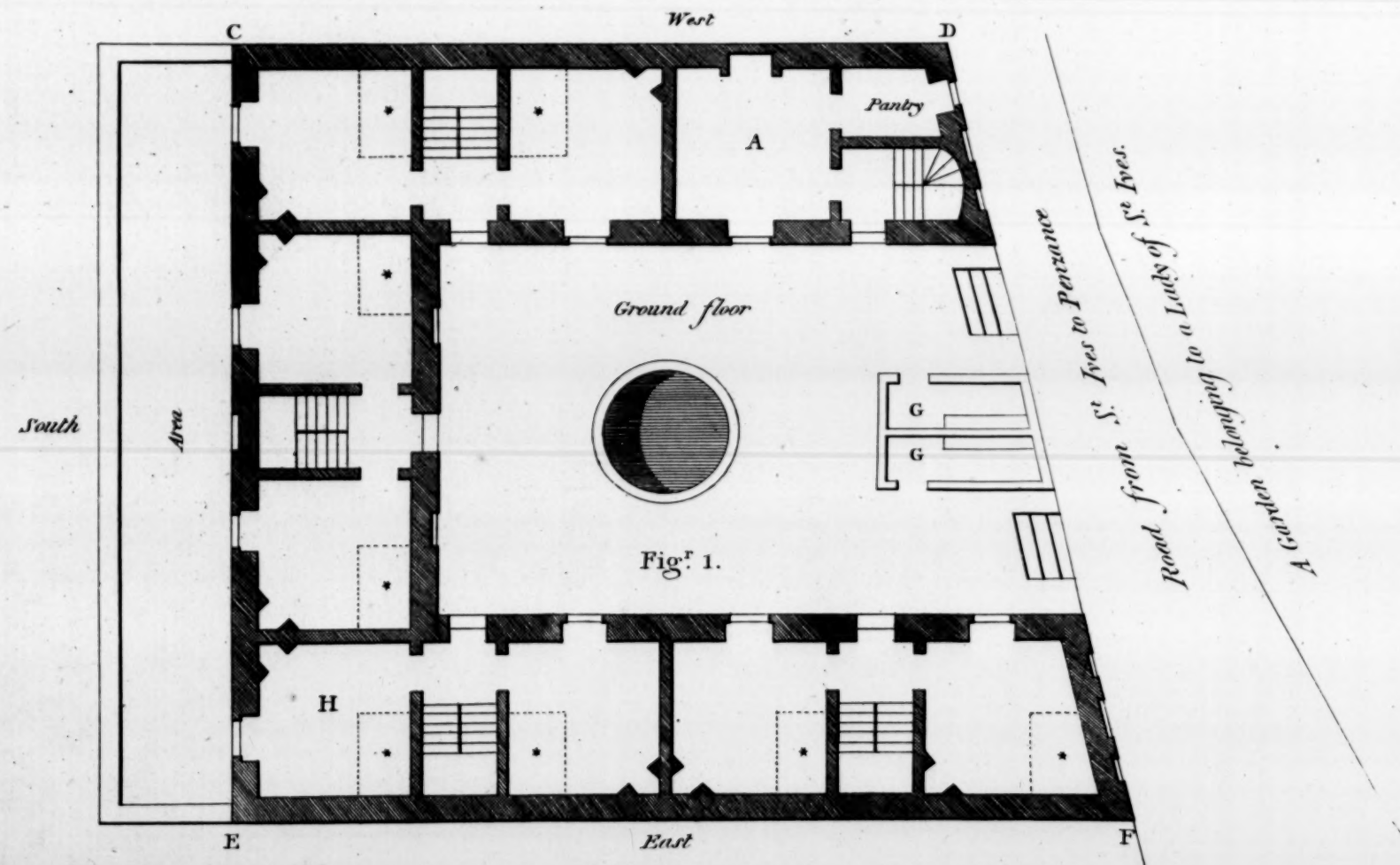


Fig.r 1.

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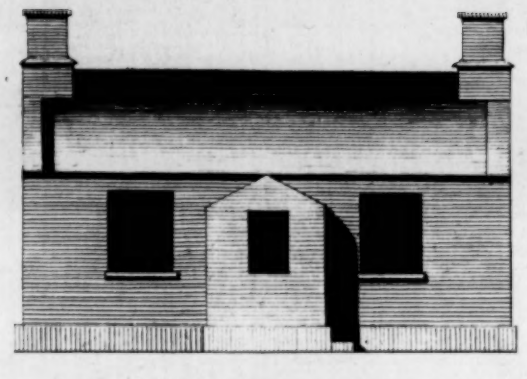
P. Begbie sc.

*Class. 2.* **Cottages with two Rooms** *Plate V.*



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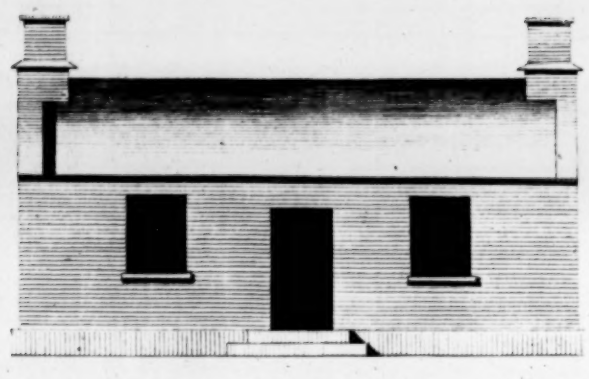

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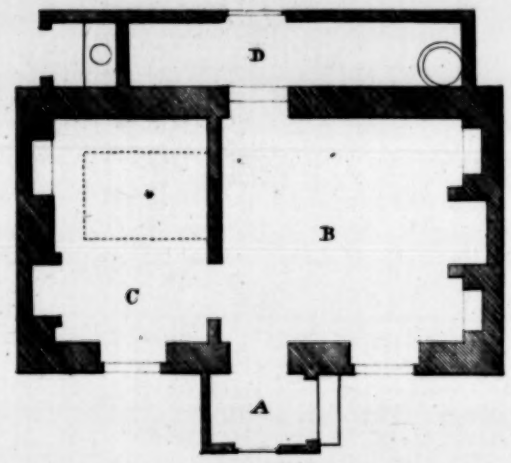
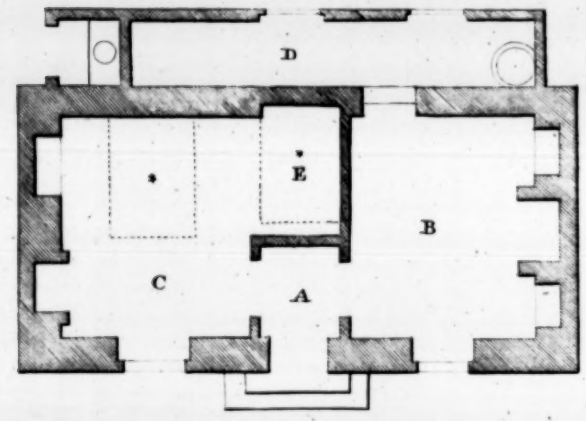
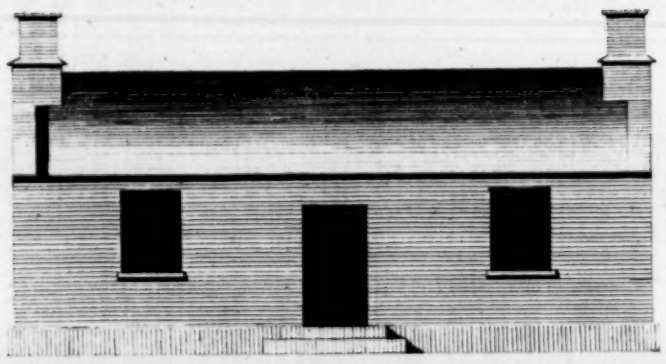



10 5 0 10 20 30 Feet



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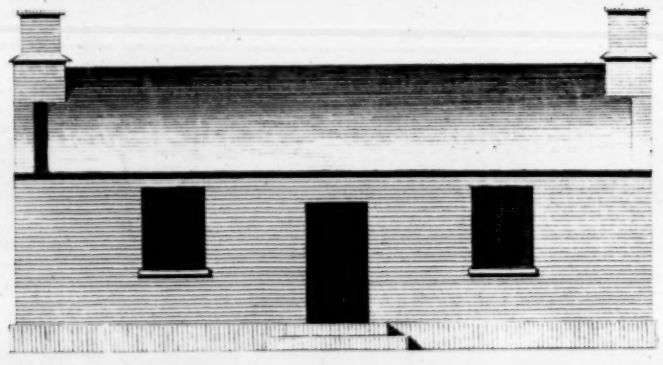

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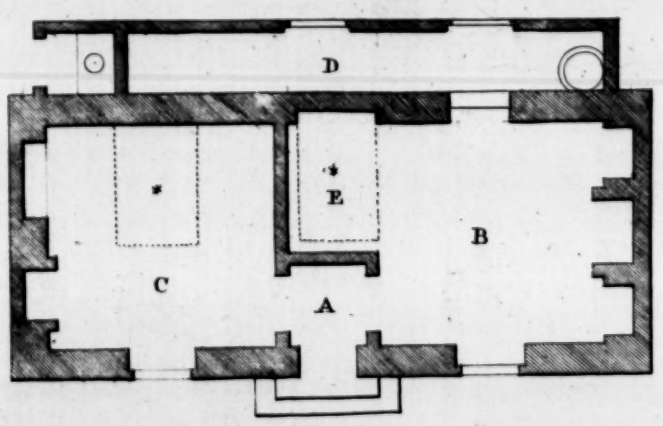


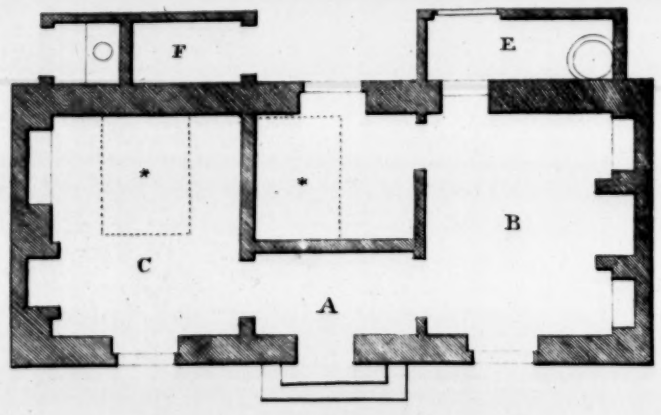


*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.t*

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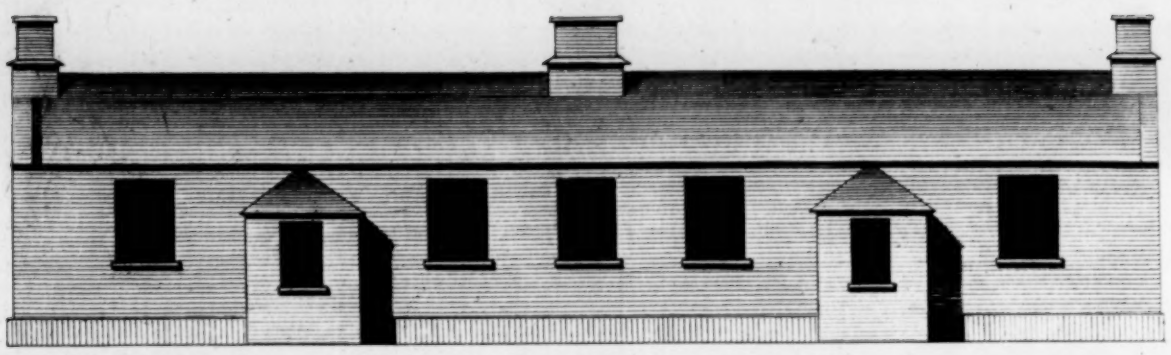

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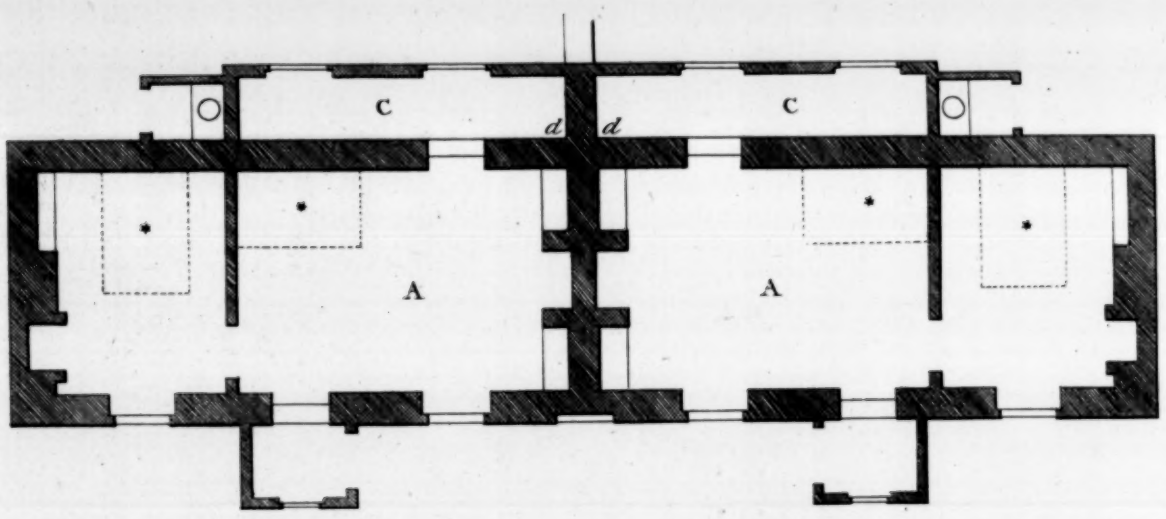

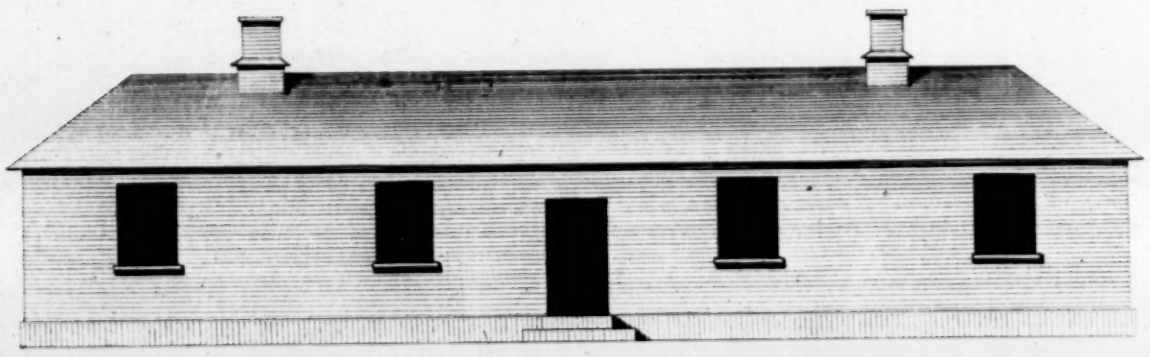

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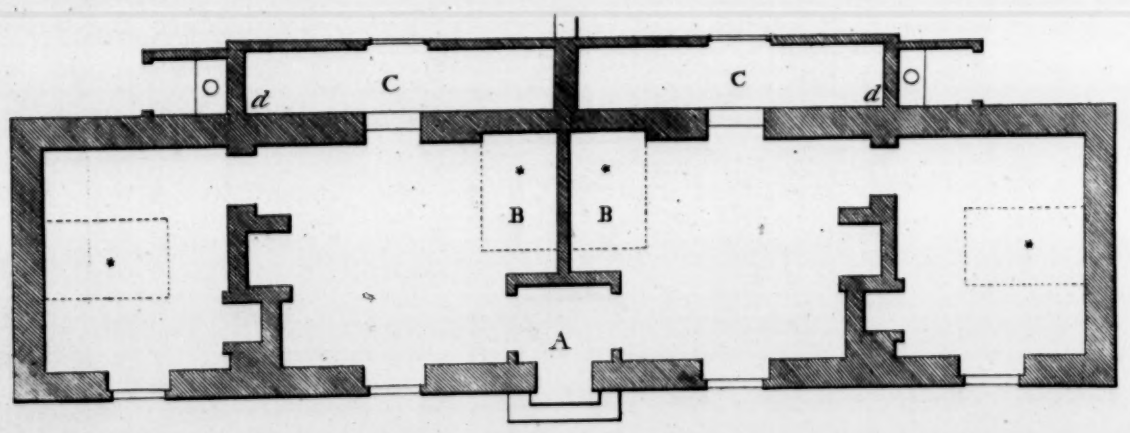


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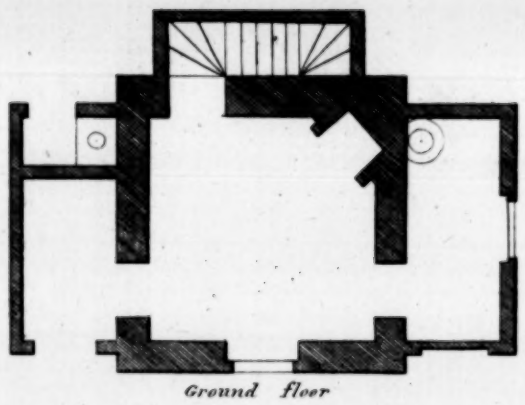
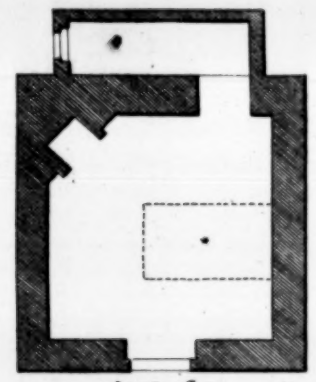


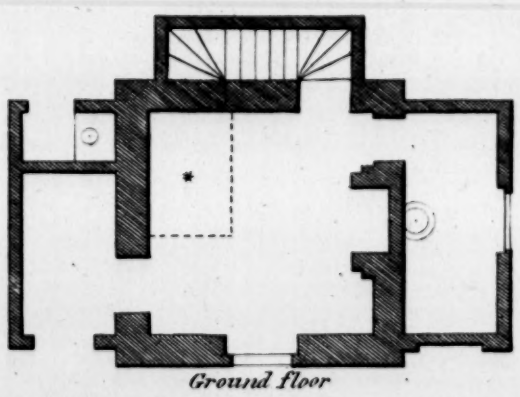
*Ground floor*

*N°. 1.*



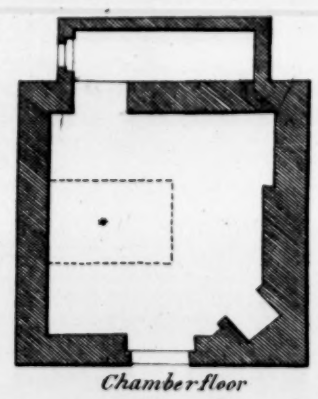
*Chamber floor*

*10 5 0 20 40 20 Feet*



*Ground floor*

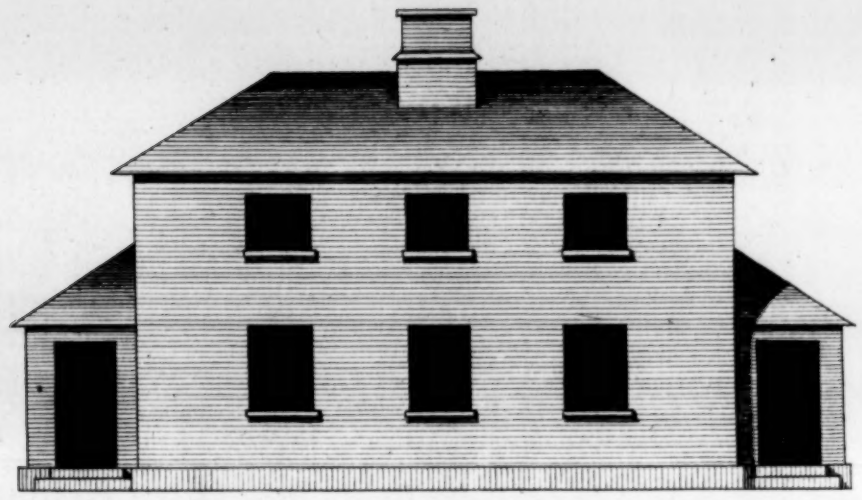
*N°. 2.*

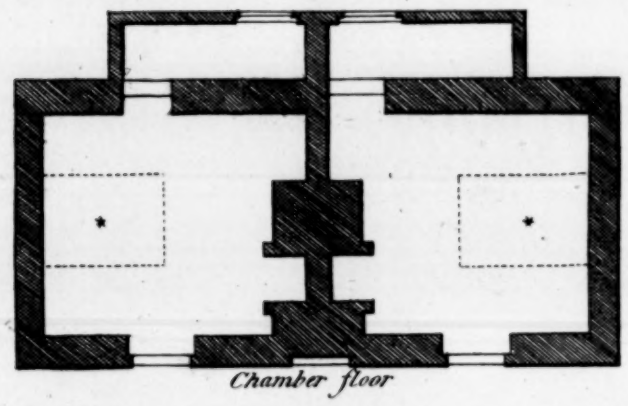


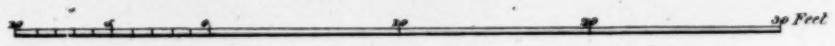
*Chamber floor*

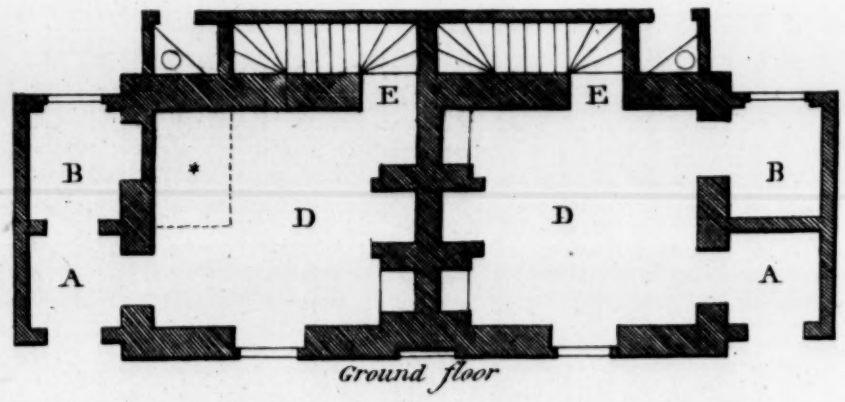
*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan.y 1.st 1751*

*P. Beybie Sculp.t*






*Engraved at the expence of John Wood, Architect after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.r*

Johns Hopkins
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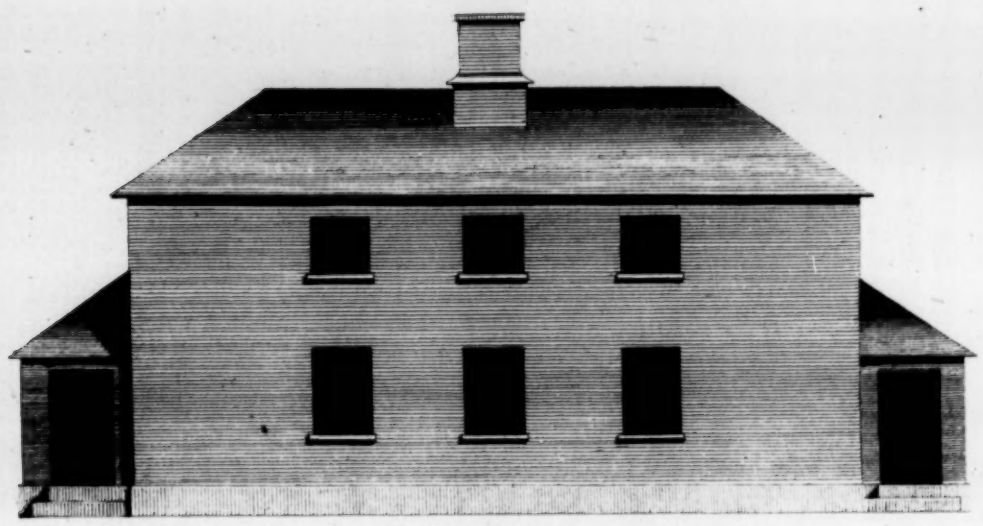
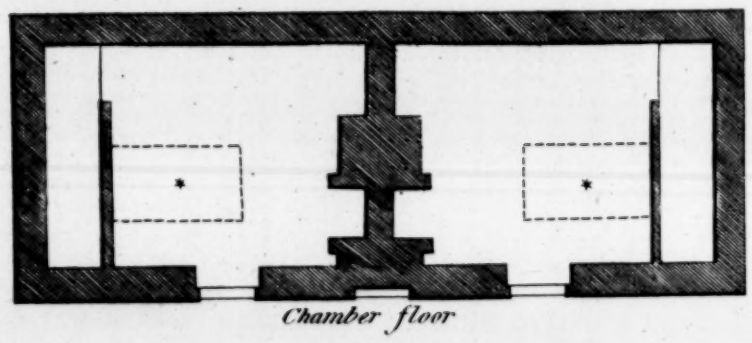
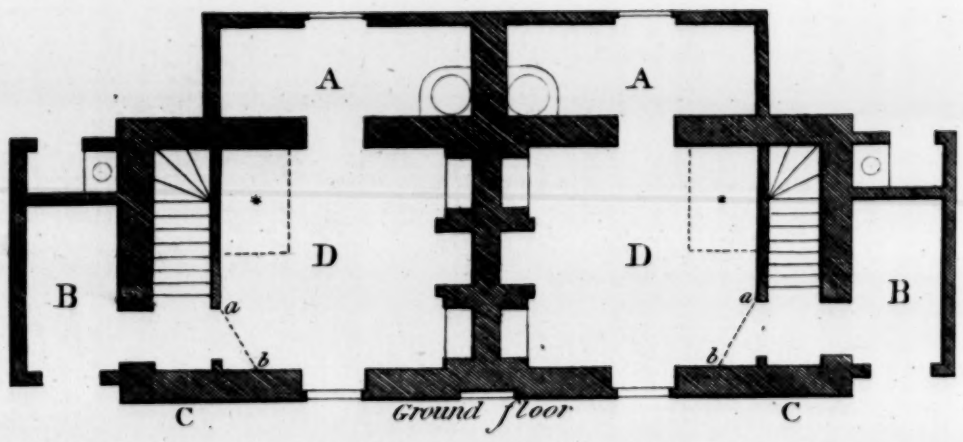
Institute



10 5 0 10 20 30 *Feet*



*Chamber floor*




*Ground floor*

*Engraved at the expence of* John Wood. *Architect, after his own original designs and published by him Jan.y 1.st 1781*

*I. Begbie Sculp.t*

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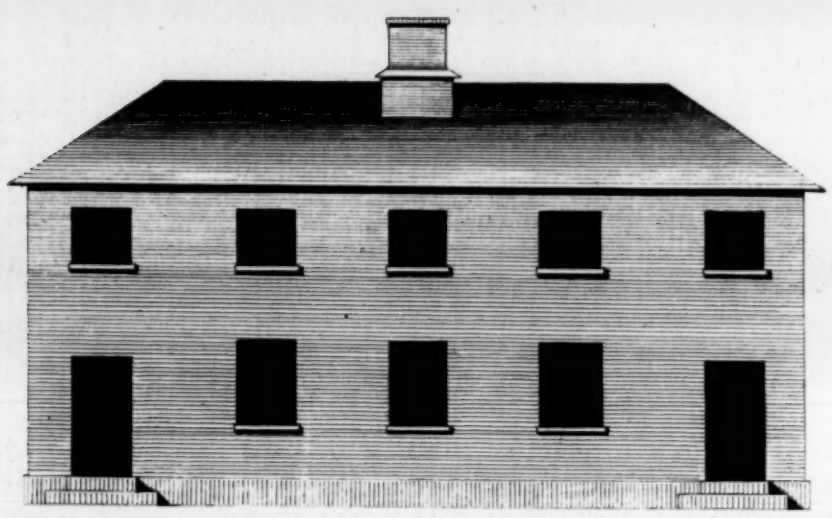
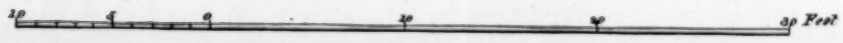
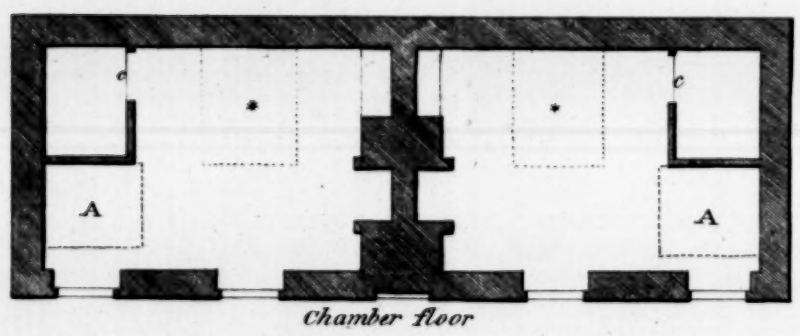
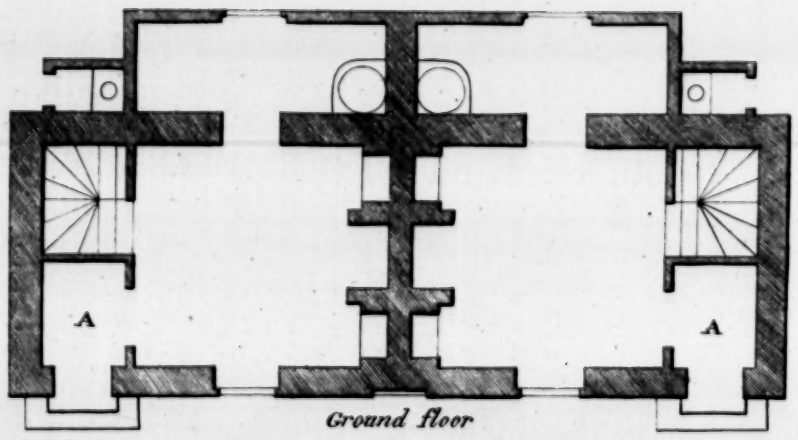





*Chamber floor*




*Ground floor*

*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.t*

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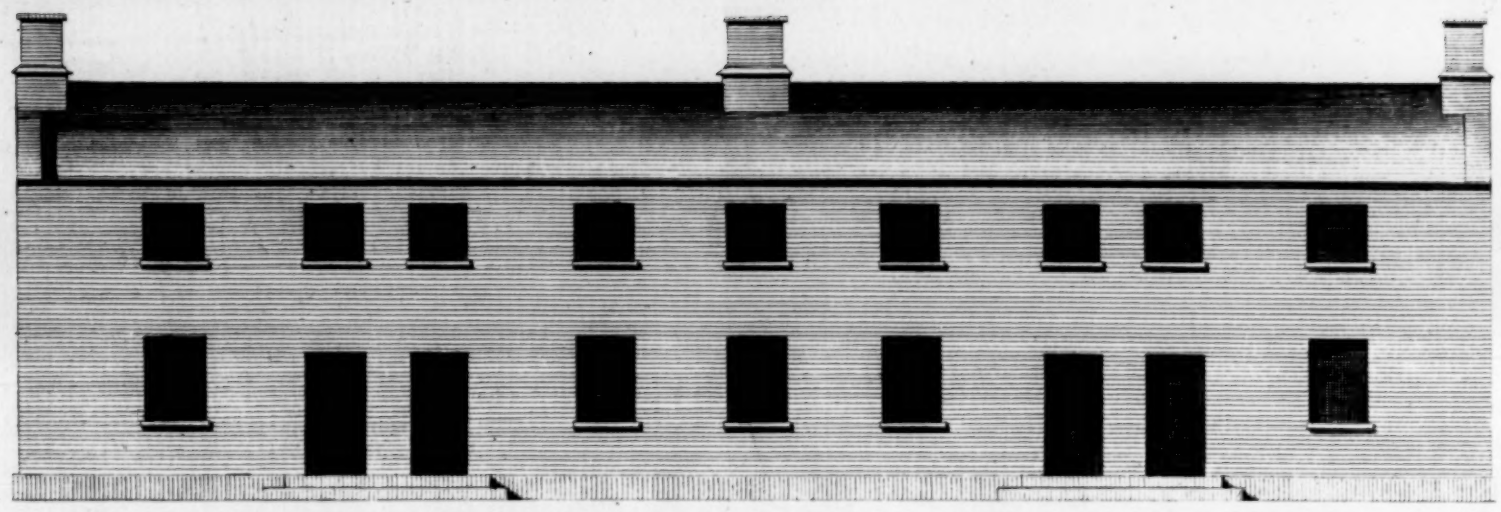
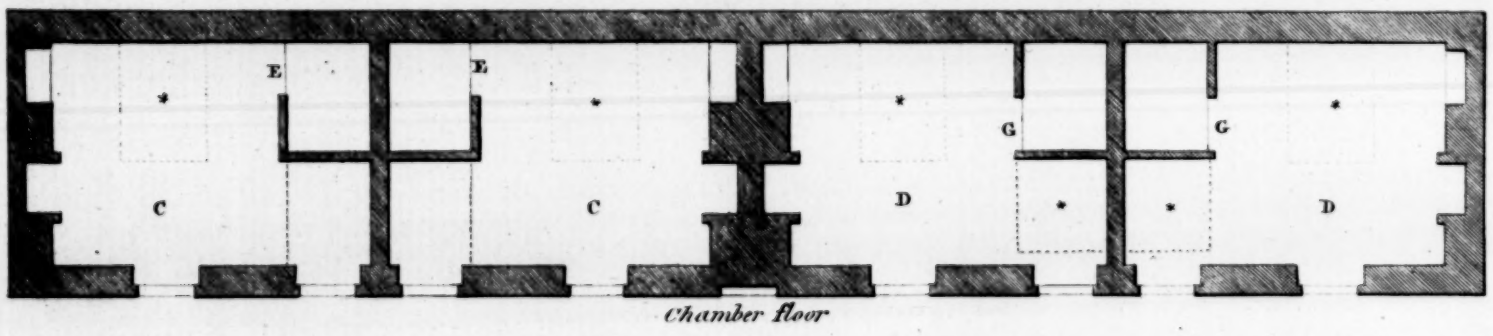
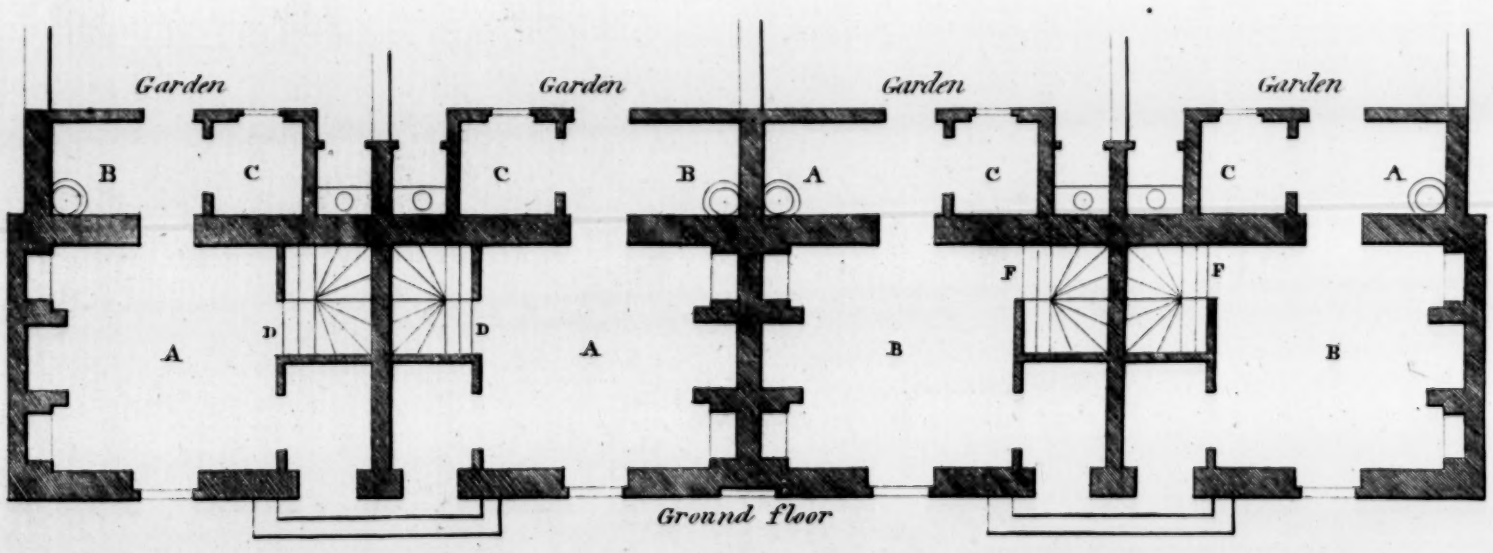


10 5 0 10 20 30 Feet




*Chamber floor*




*Ground floor*

*Engraved at the expence of John Wood, Architect, from his own original designs and published by him* Jan.y 1st 1781

*P.Roglio sculp.t*

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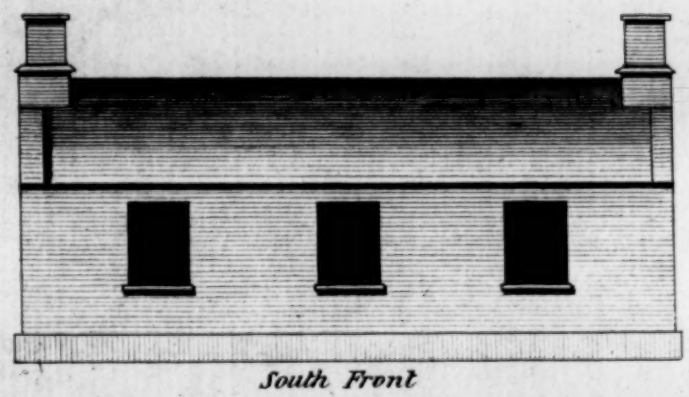

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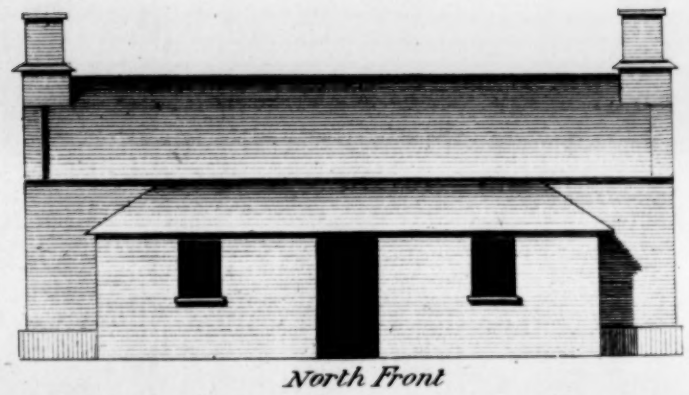
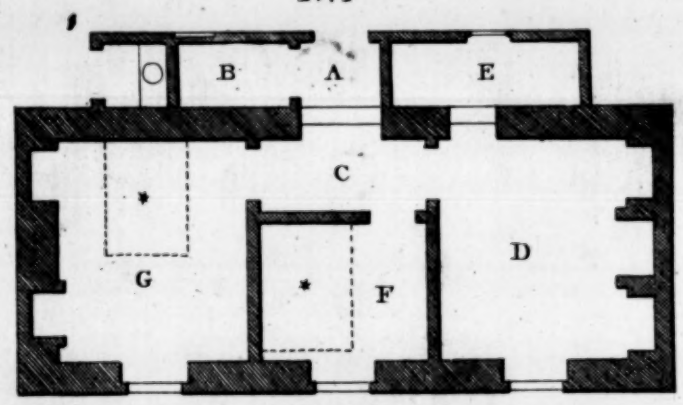
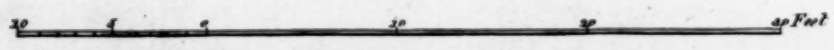


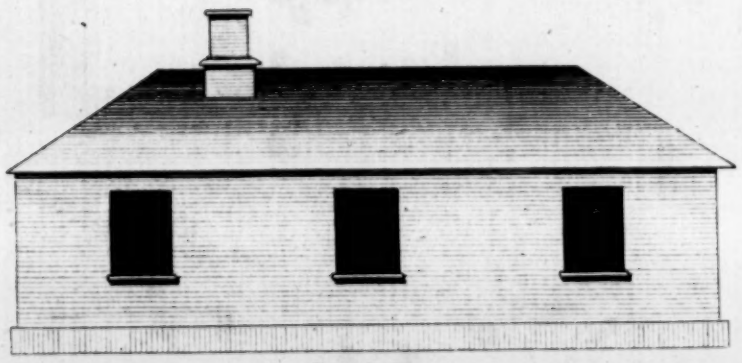
*North Front*

*N°1*

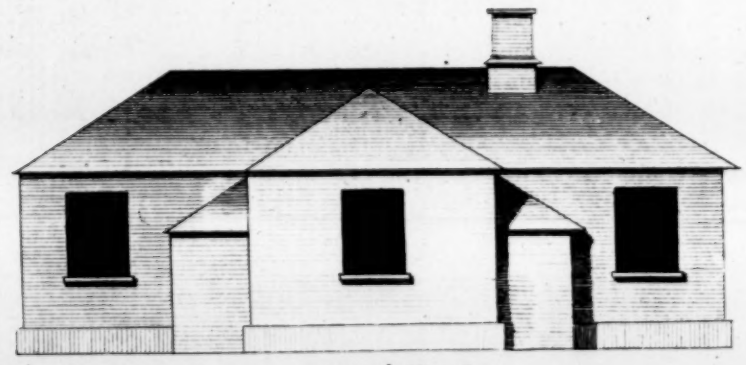



*South*



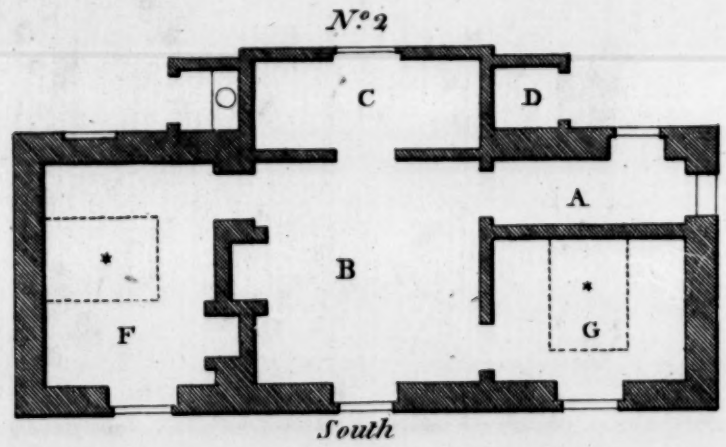



*South Front*



*North Front*

*N°2*

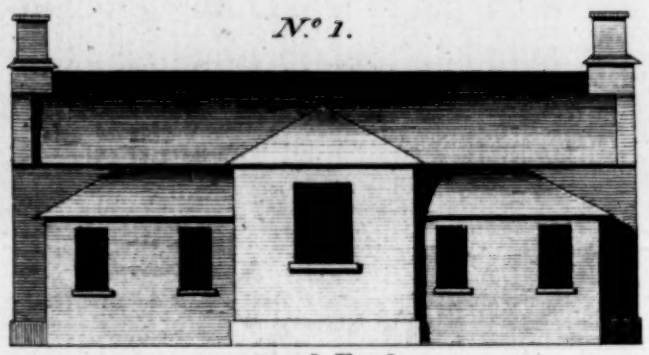



*South*

*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan.y 1.st 1781*

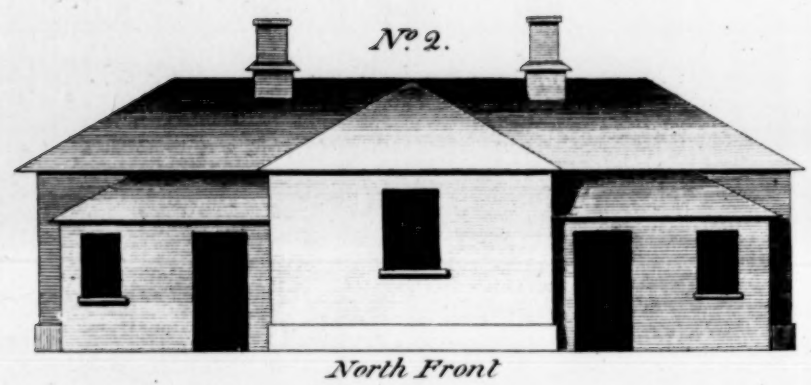
*P. Begbie Sculp.t*

*N.o 1.*



*North Front*

*N.o 2.*



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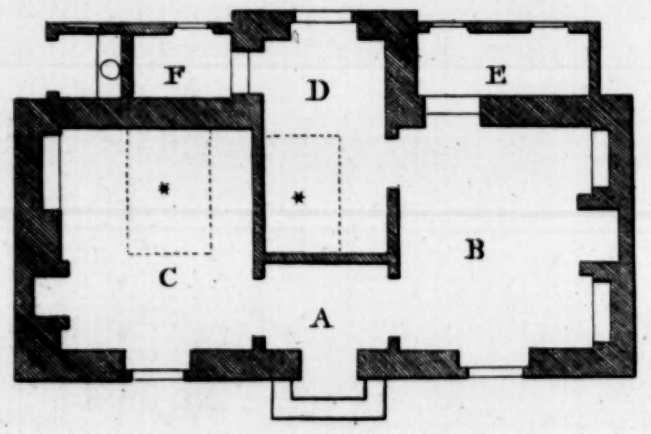


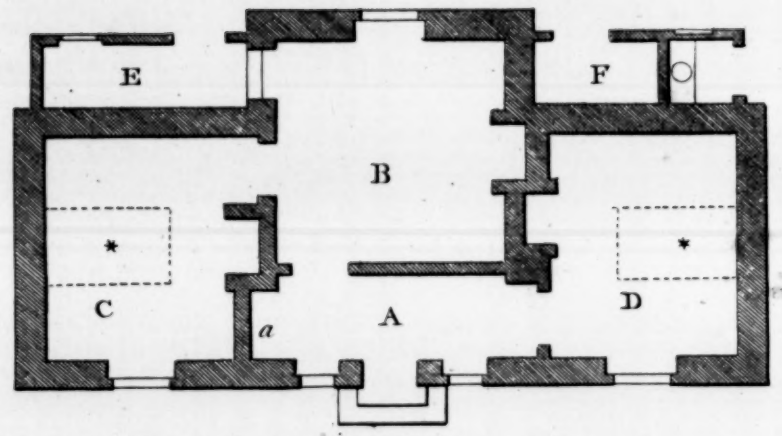


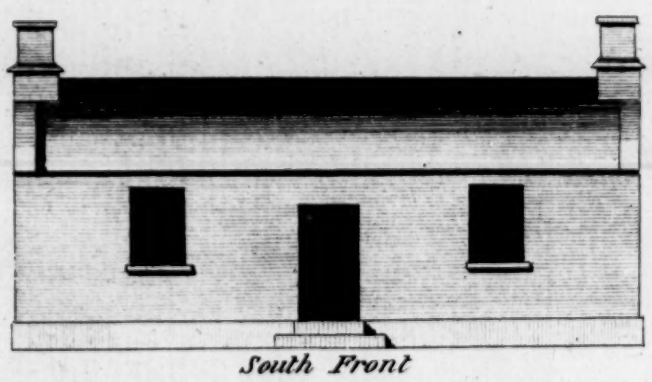

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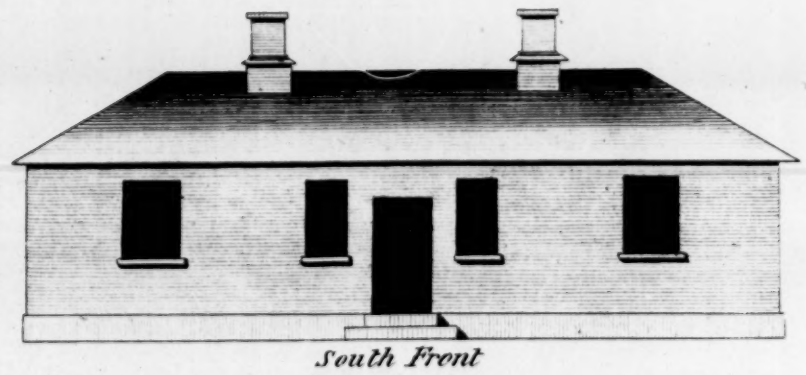

*South Front*

10 5 0 20 40 80 Feet

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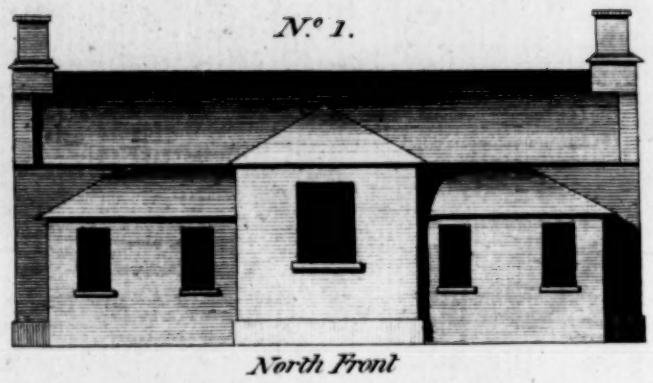
*P. Begbie Sculp.t*

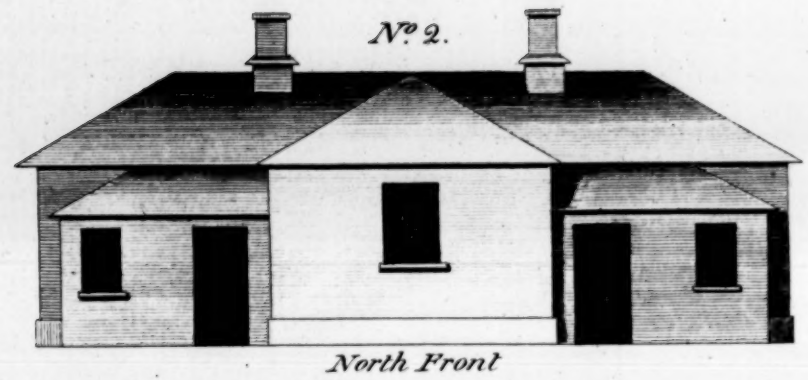
*Class 3.* Cottages with three Rooms *Plate XIII.*

*N.° 1.*

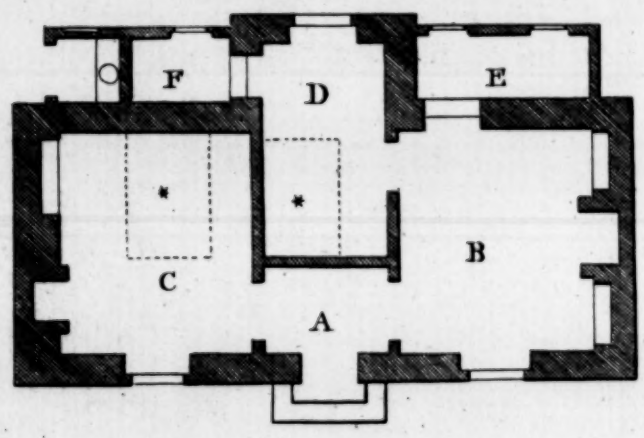


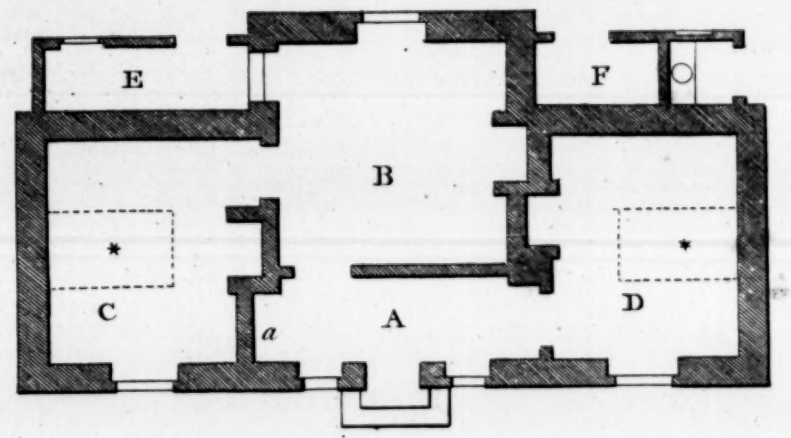
*North Front*

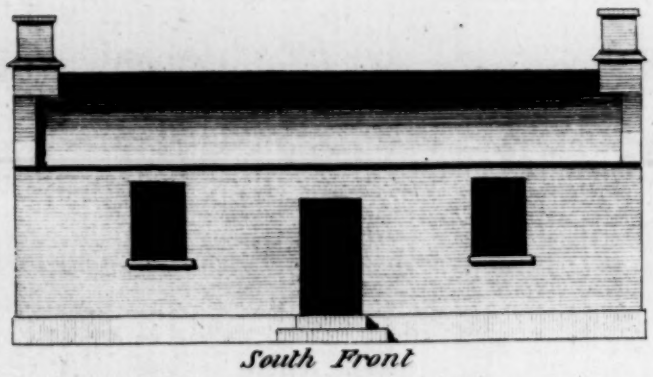
*N.° 2.*



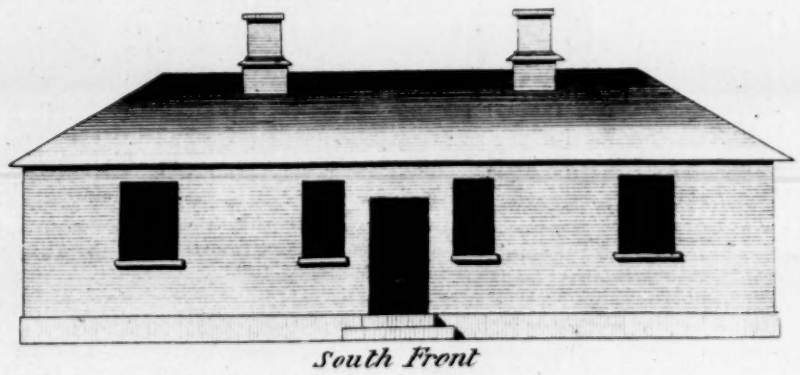
*North Front*



*South Front*



*South Front*

20 5 0 20 40 80 Feet

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*P. Begbie Sculp.t*

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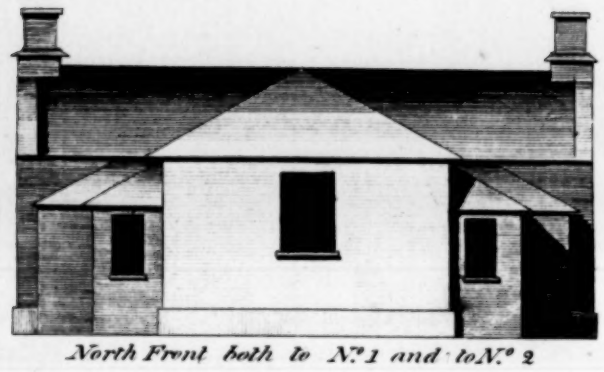
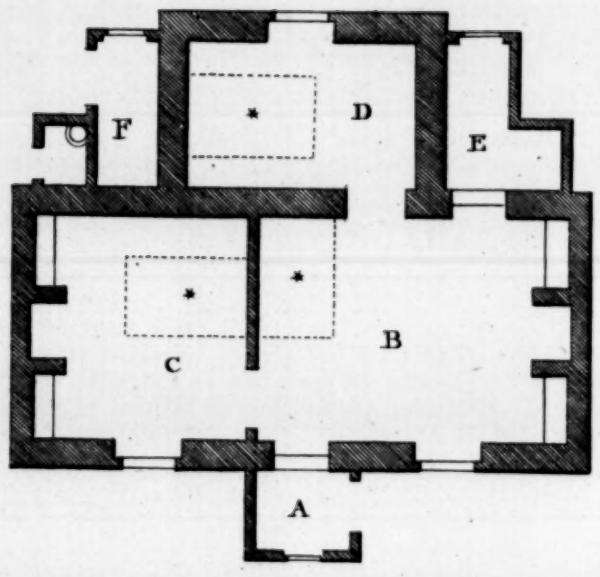
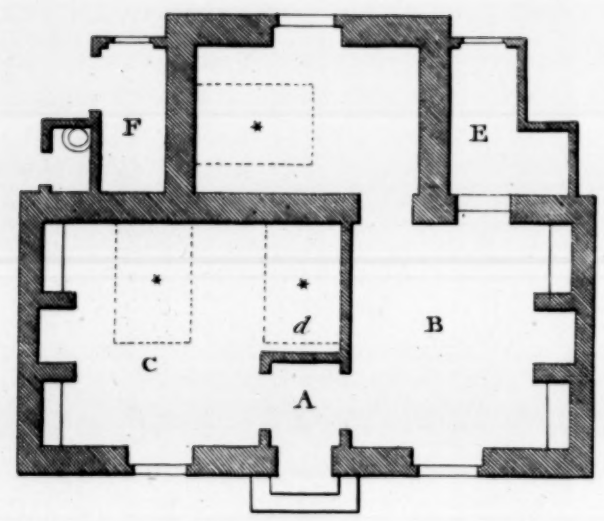


*North Front both to N.° 1 and to N.° 2*




*N.° 1.*

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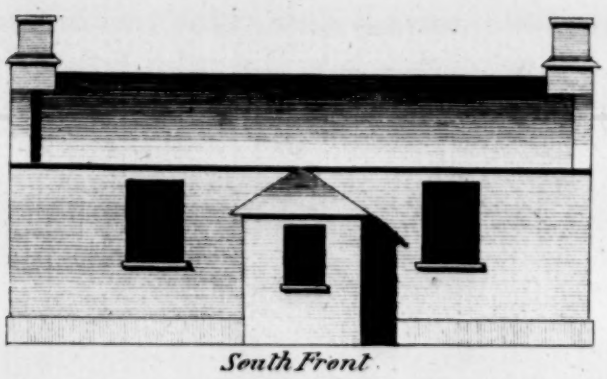
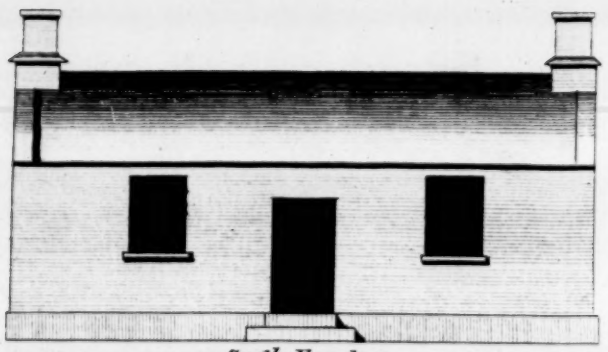


*South Front*



*South Front*

10 5 0 10 20 30 Feet

*Engraved at the expence of John Wood. Architect. after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.t*

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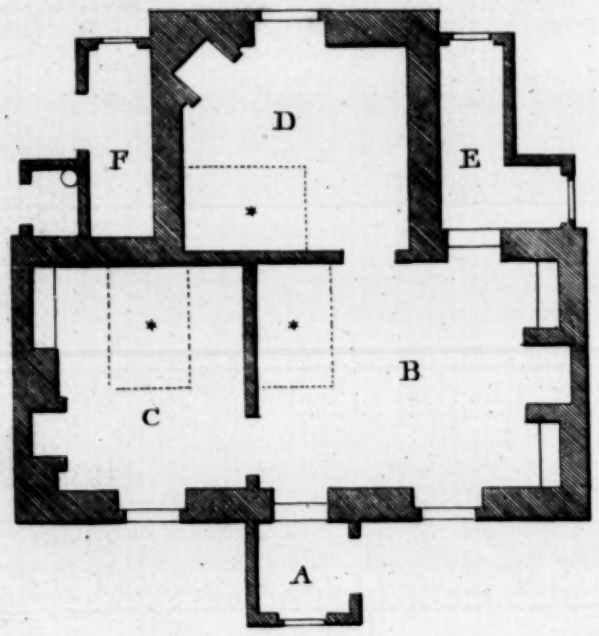
*North Front of N°1 and N°2.*

*North Front of N°3.*

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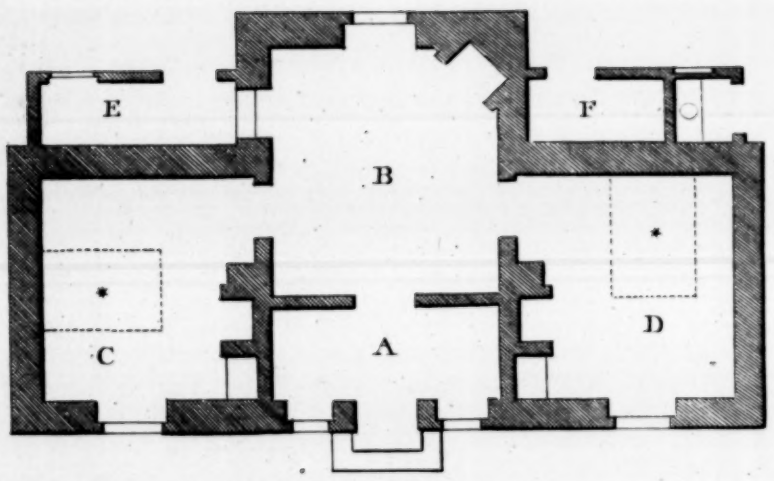


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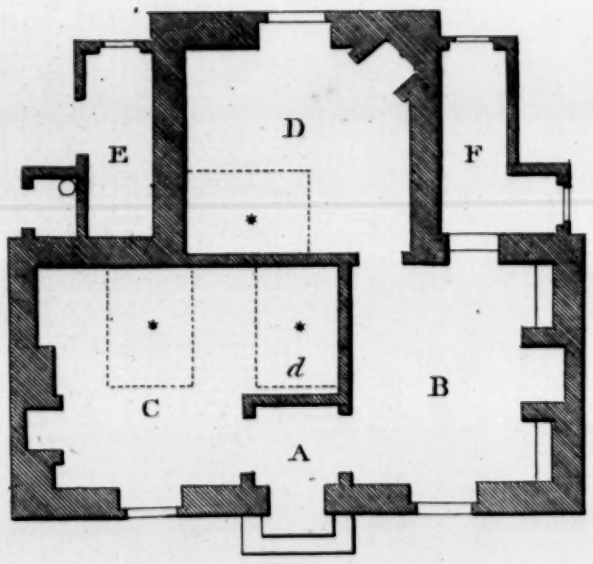


*N°2.*

20 10 0 10 20 30 Feet

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*P. Begbie Sculp.t*

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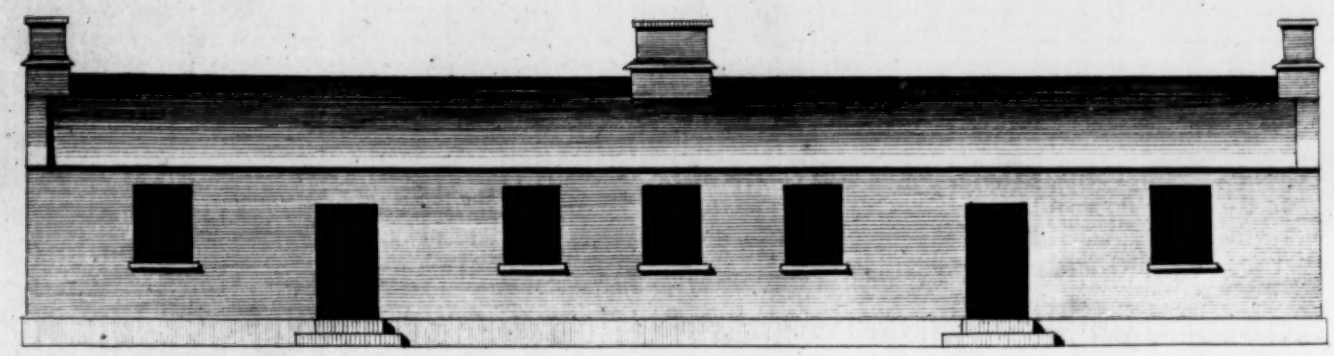
27 JUIN 1922
PARIS



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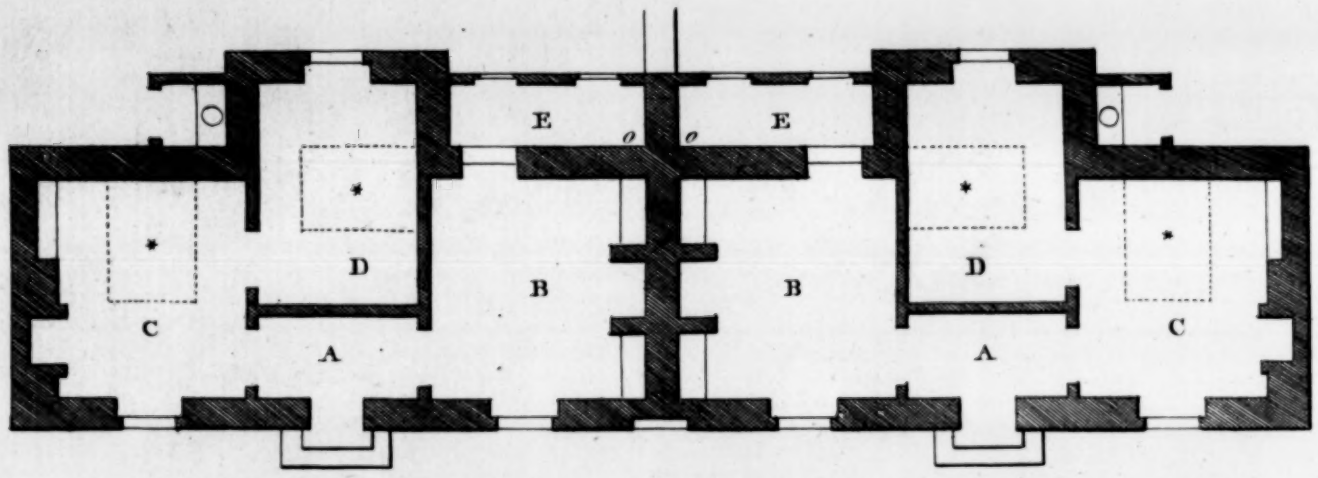
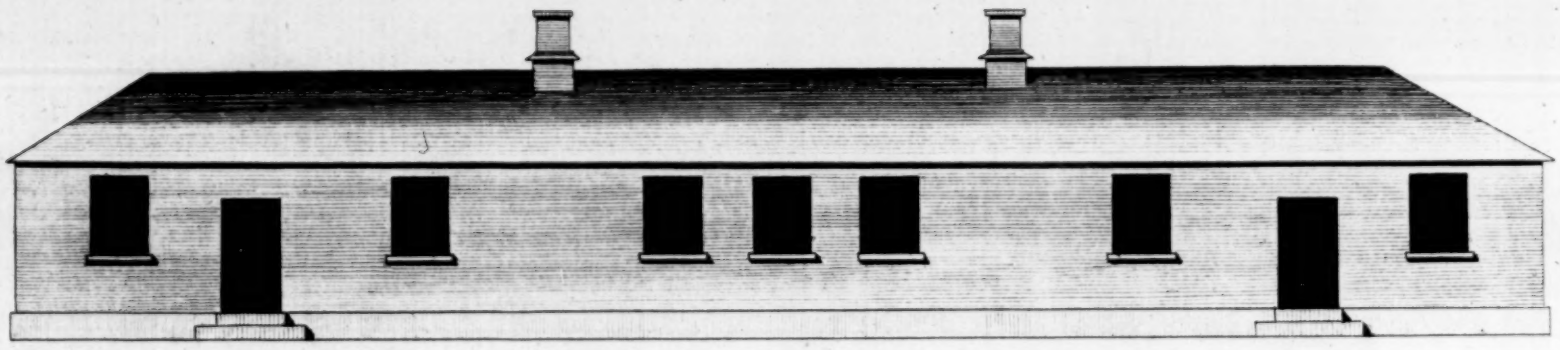
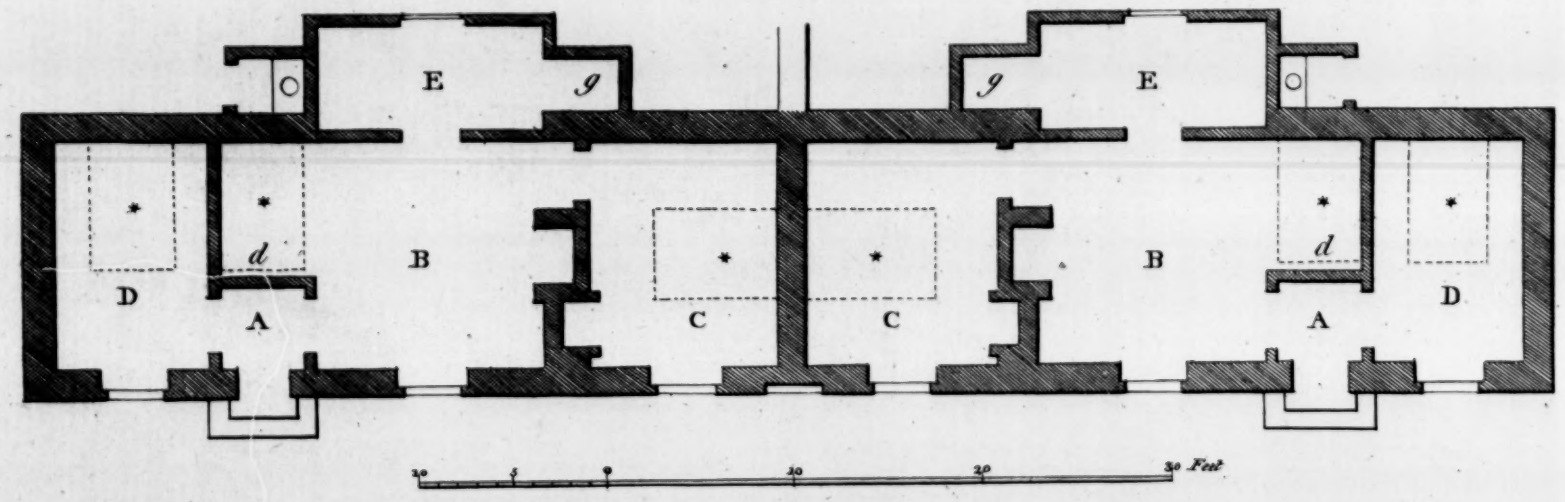


*N.° 2.*

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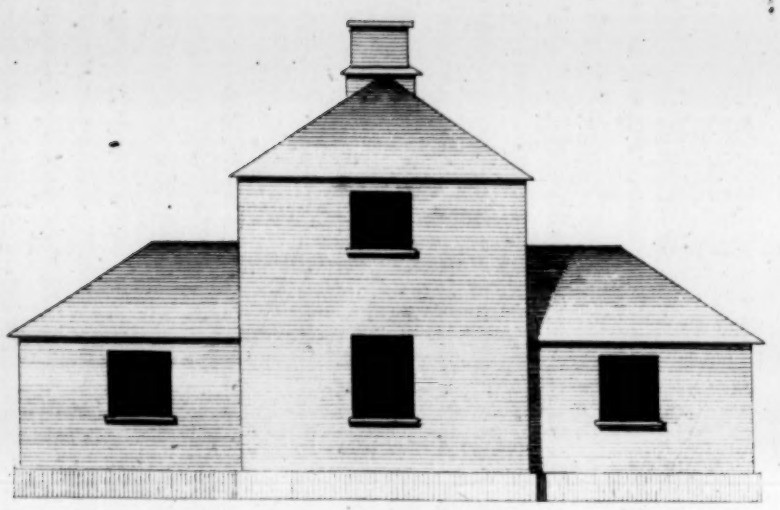
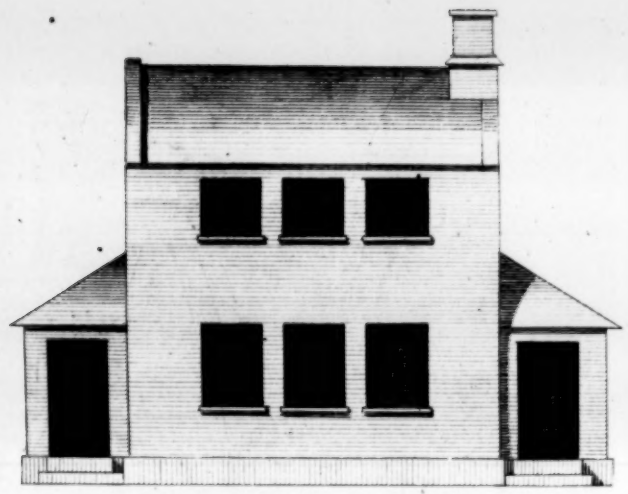
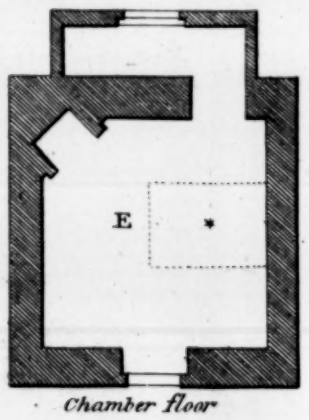
*P. Begbie Sculp.t*





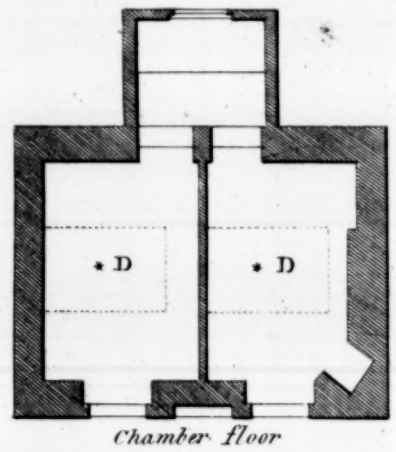
*3 Feet*

*N°. 1*

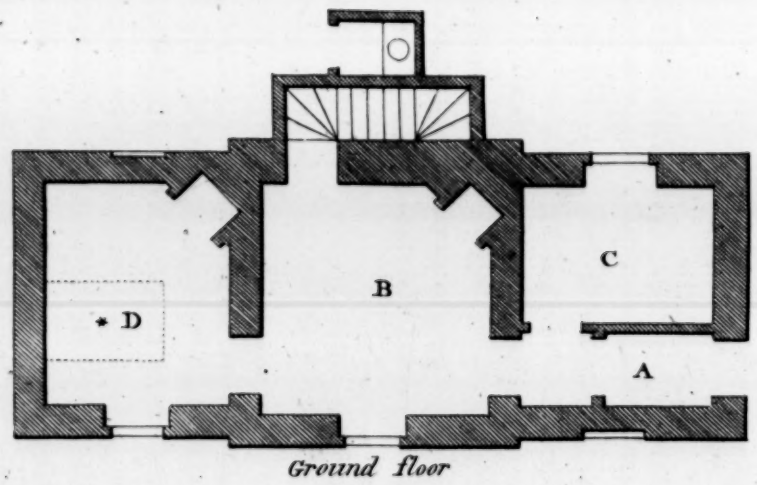



*Chamber floor*

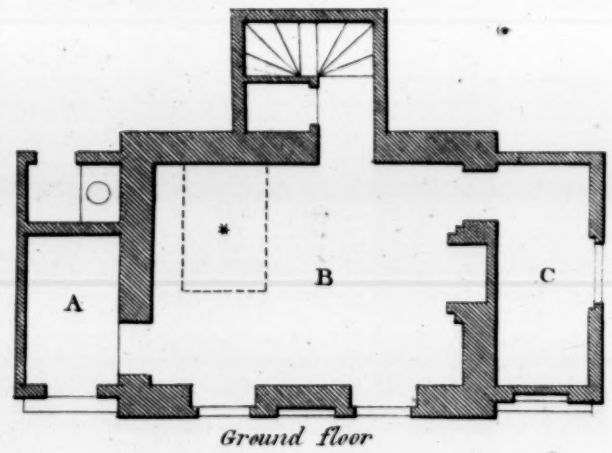
*N°. 2*




*Chamber floor*




*Ground floor*




*Ground floor*

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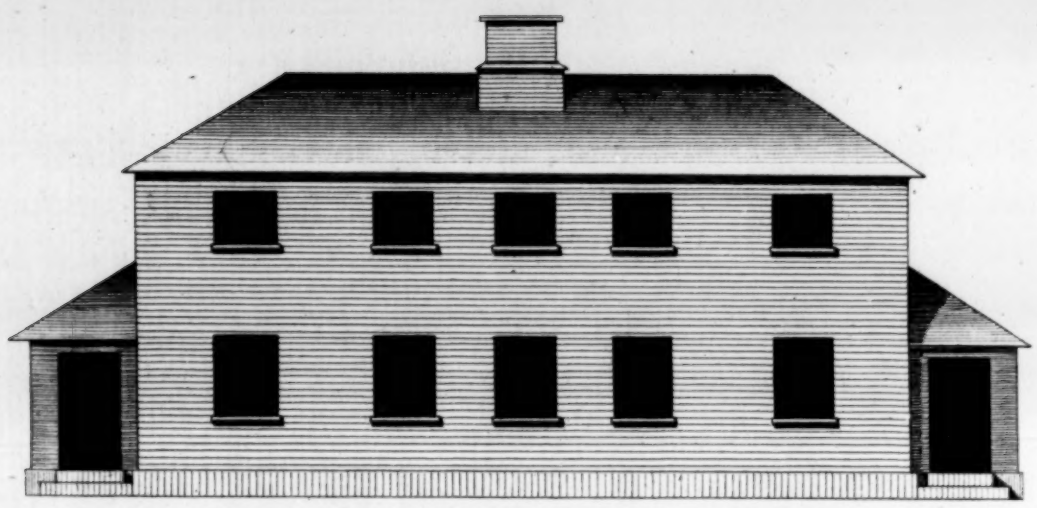
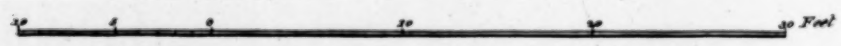
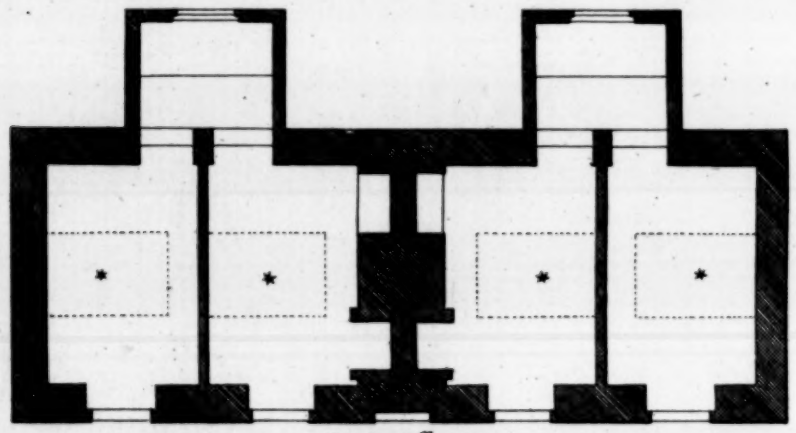
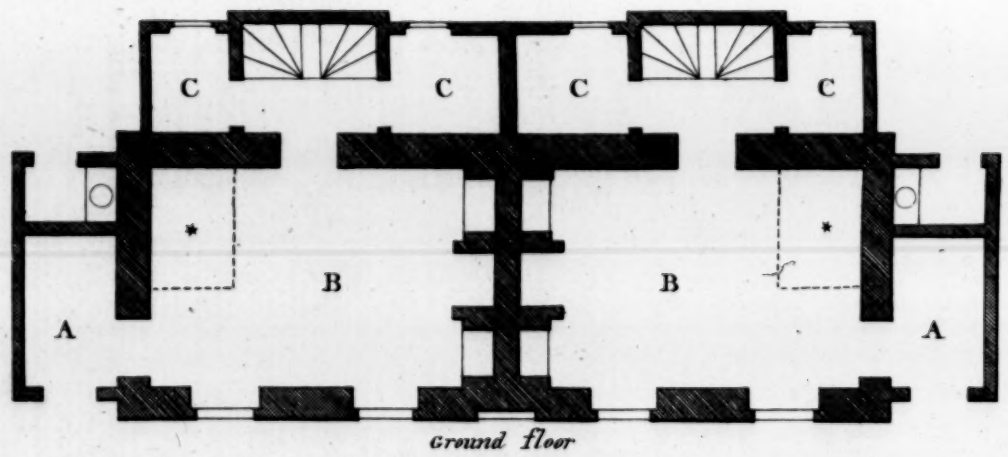
22 OCT 26





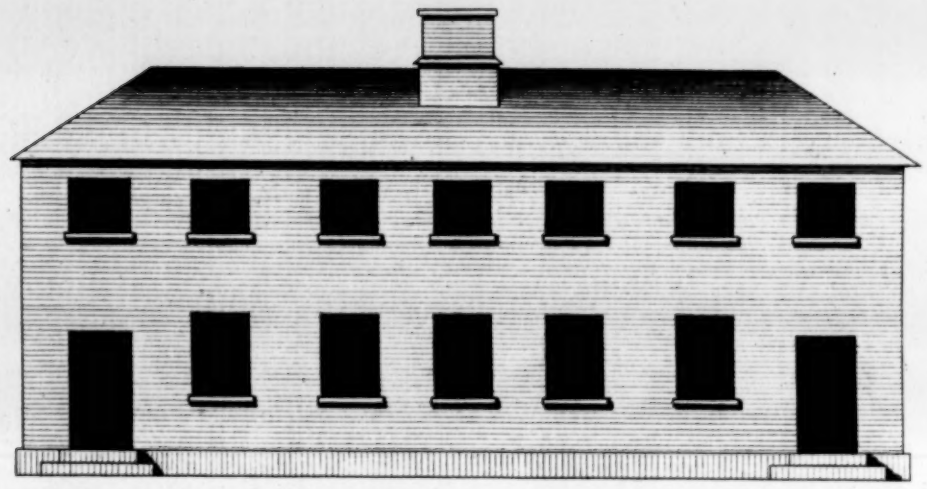
*Chamber floor*

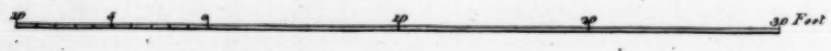


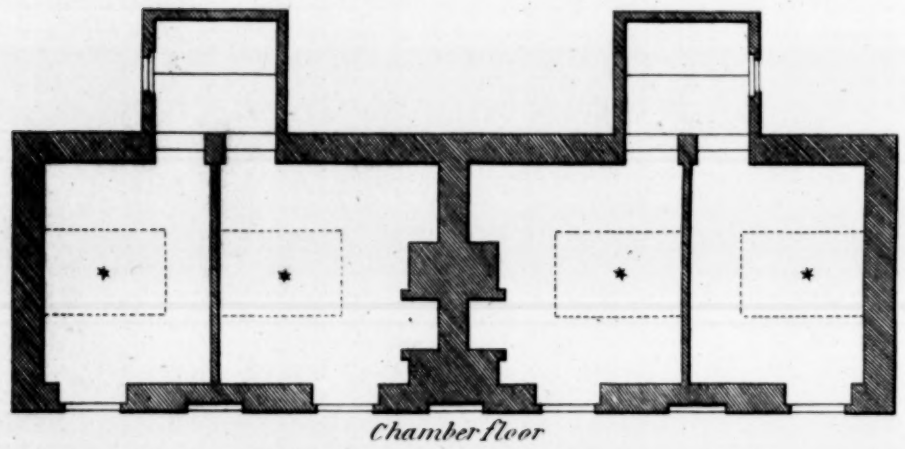

*Ground floor*

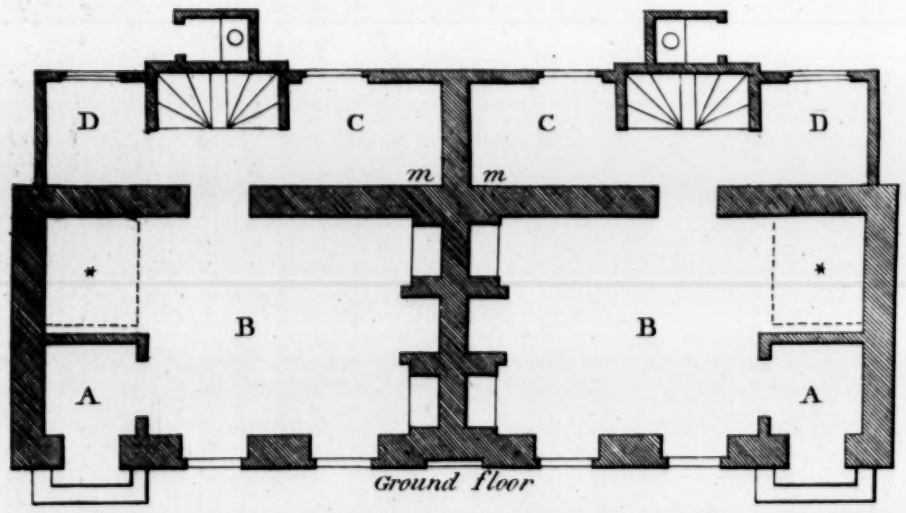
*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.t*



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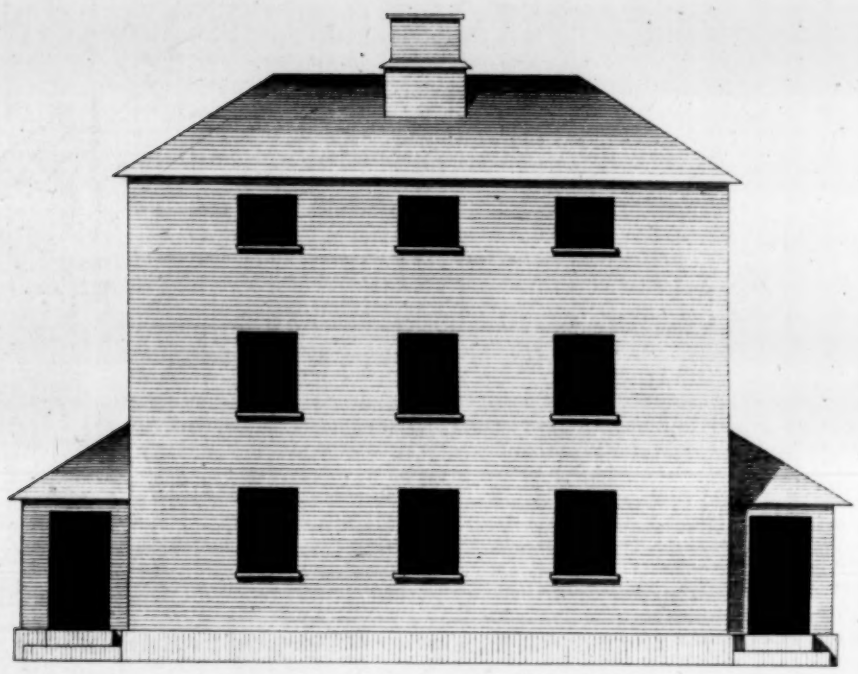
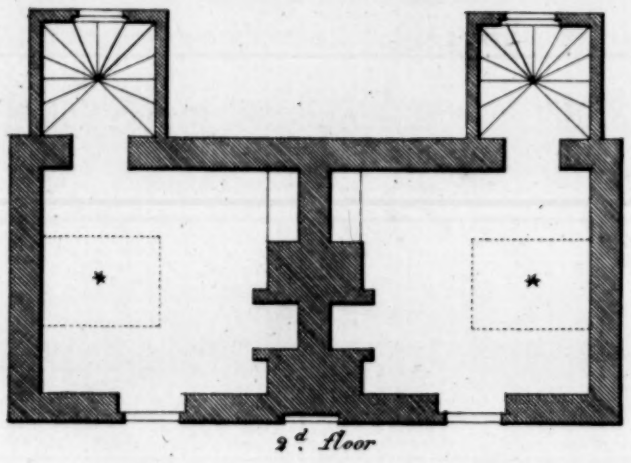
SILLITOE
22 OCT 75
JUSTICE

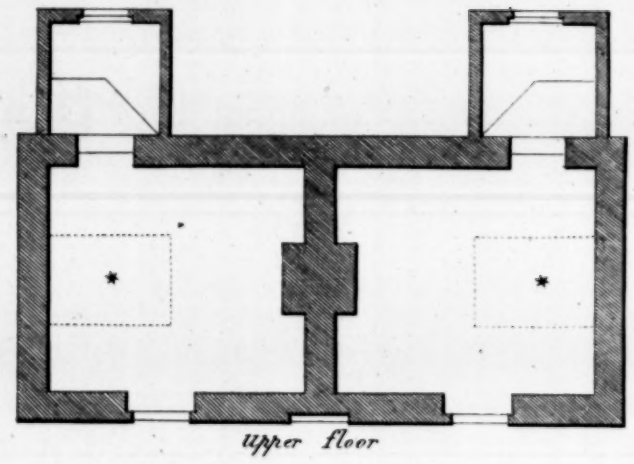
# Cottages with three Rooms







3d. floor



Upper floor

10 4 0 20 40 80 Feet



Ground floor

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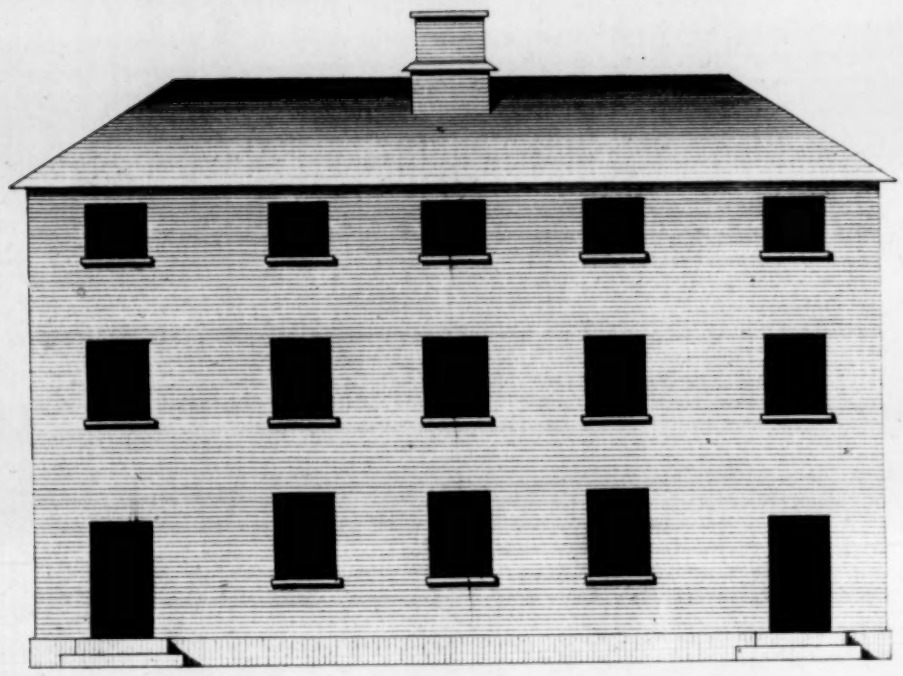
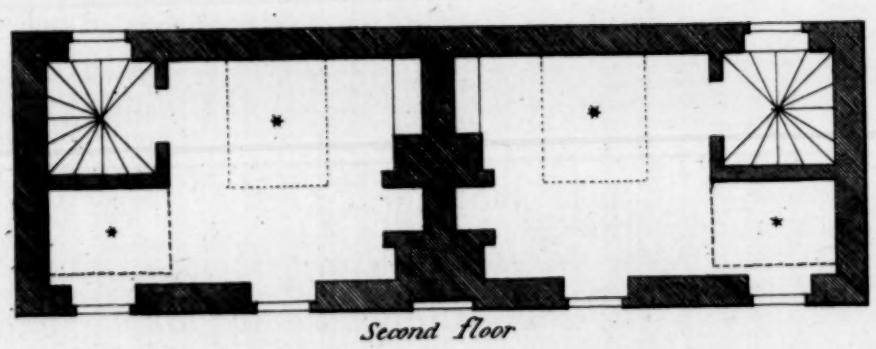
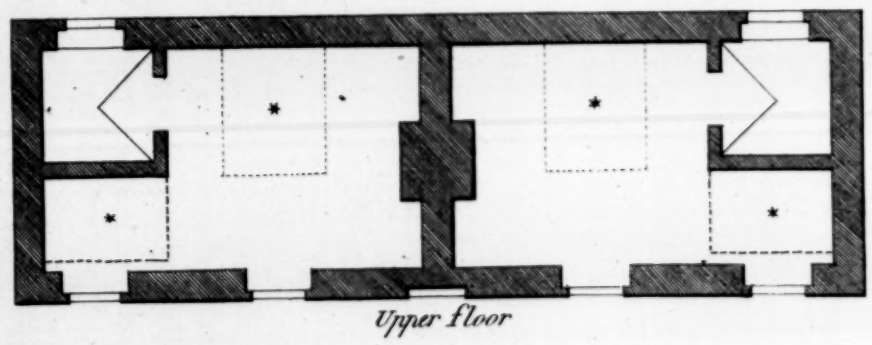
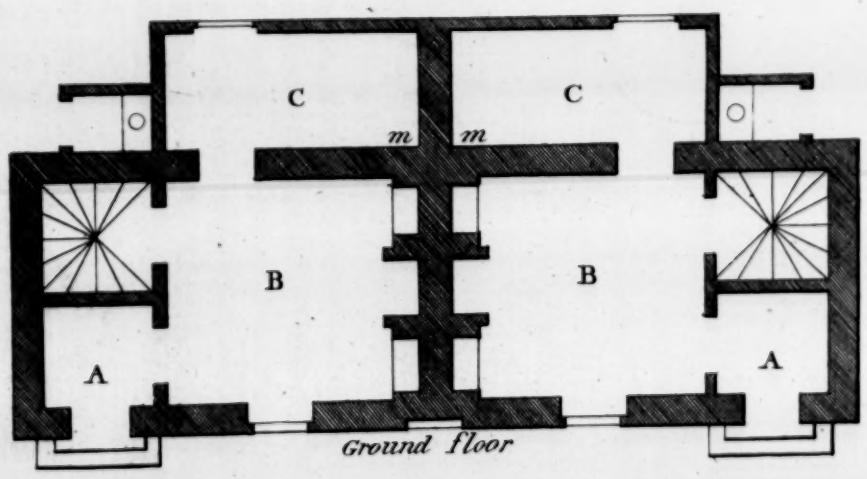
COLLECTION
22 OCT 25
HISTORY







Second floor


Upper floor



Ground floor

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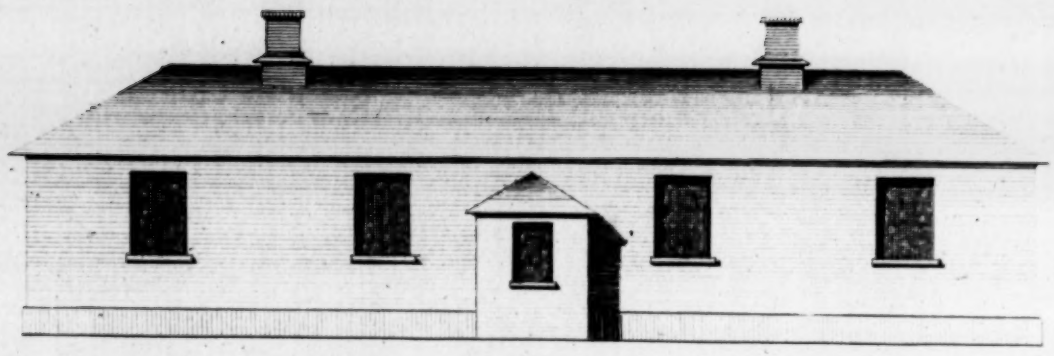
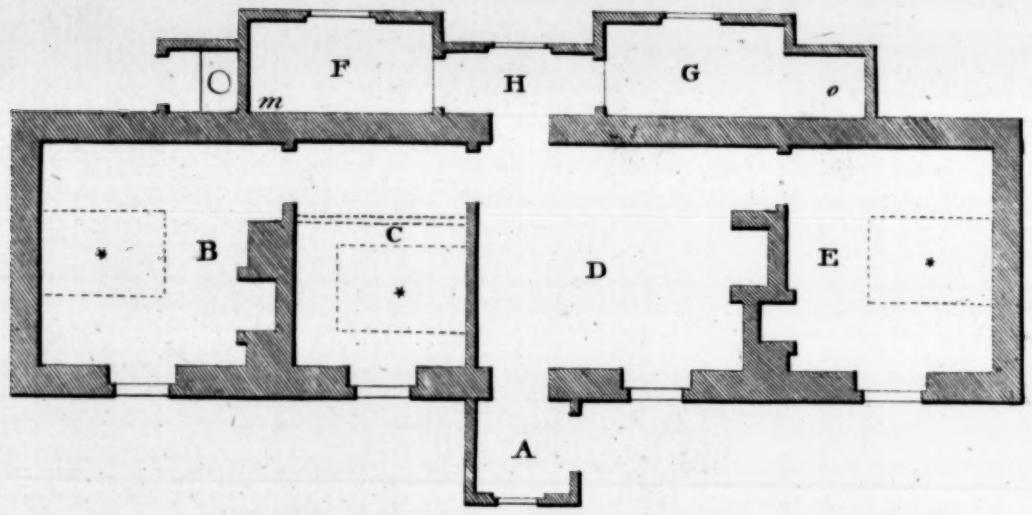
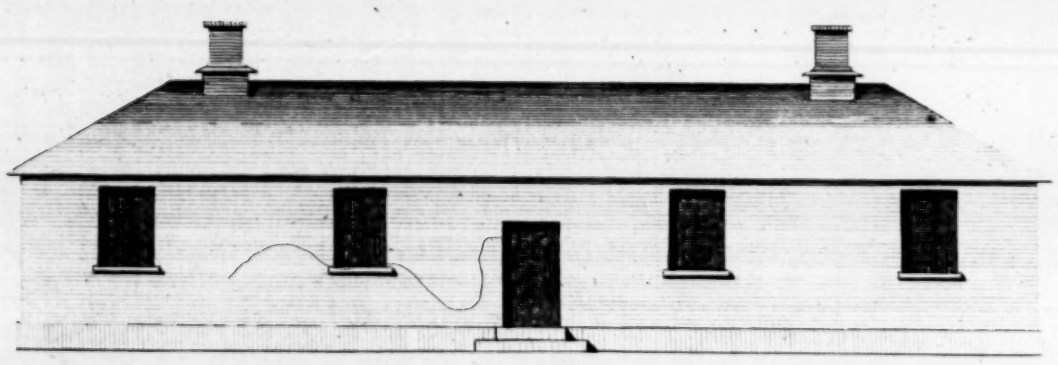
*P. Begbie Sculp.t*

*Class. 4.* **Cottages with four Rooms** *Plate. XXII.*

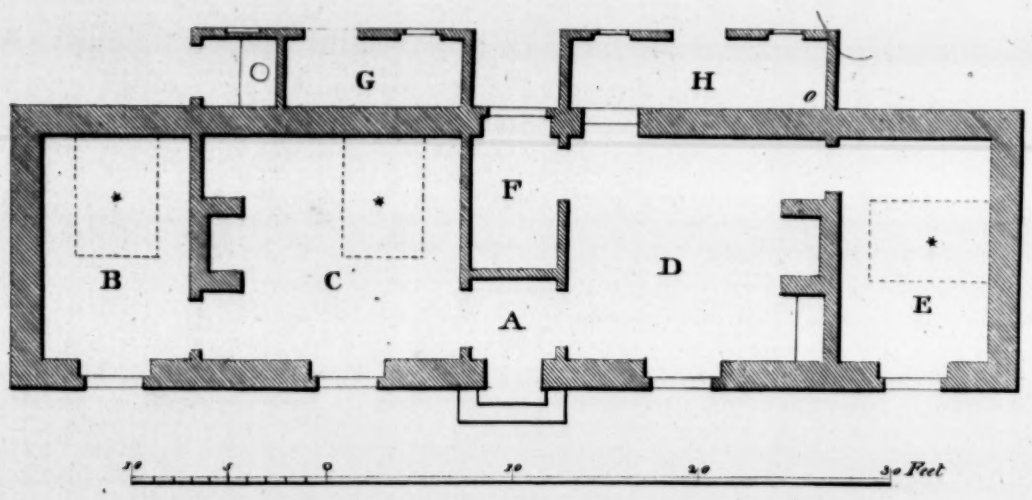


*N.º 1.*



*N.º 2*

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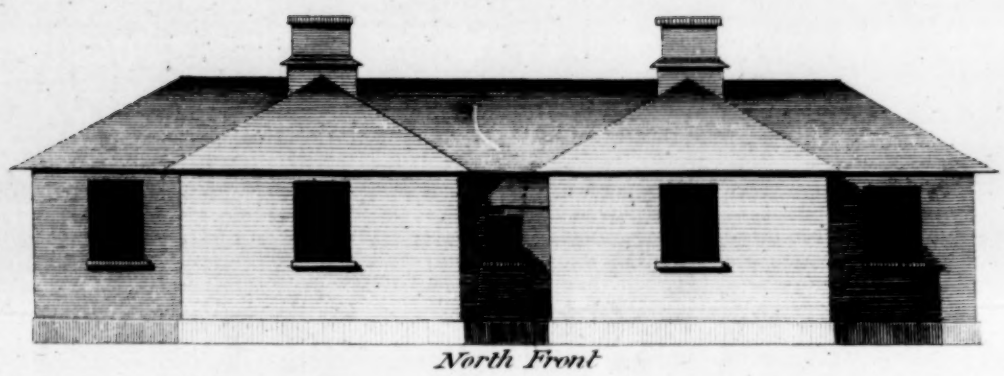
*P. Begbie Sculp.r*

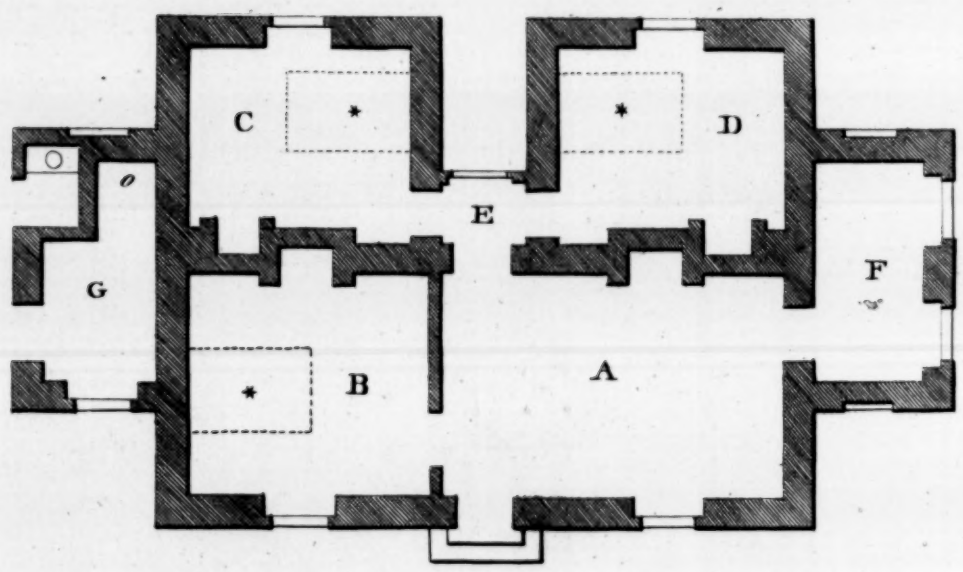
*Clafs. 4.*

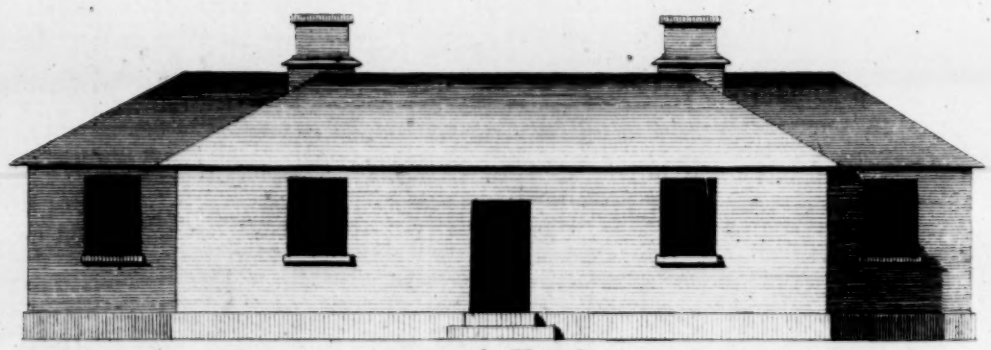
# Cottages with four Rooms

*Plate XXIII*

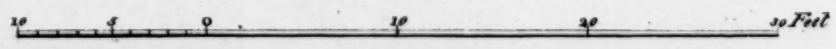


*North Front*



*South Front*

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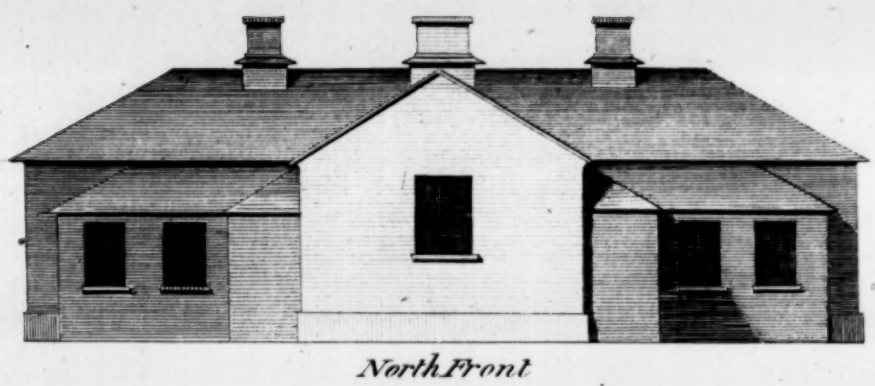
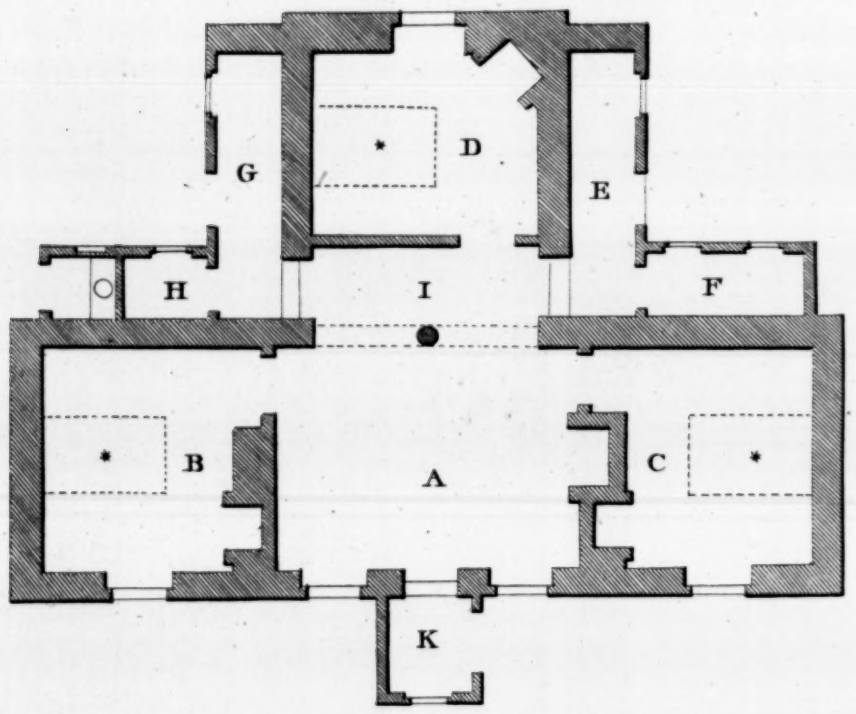
# Cottages with four Rooms

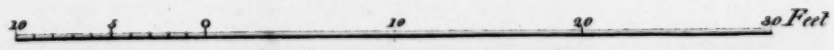




*North Front*



*South Front*

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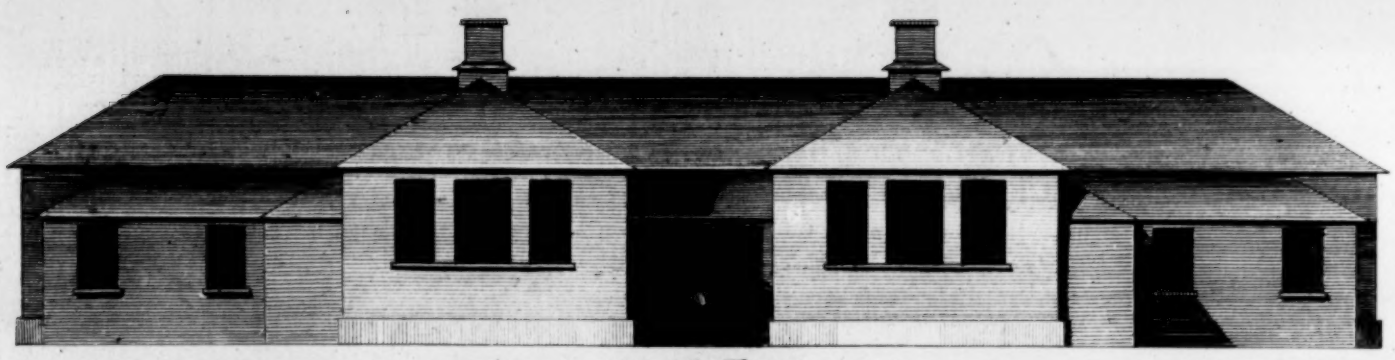
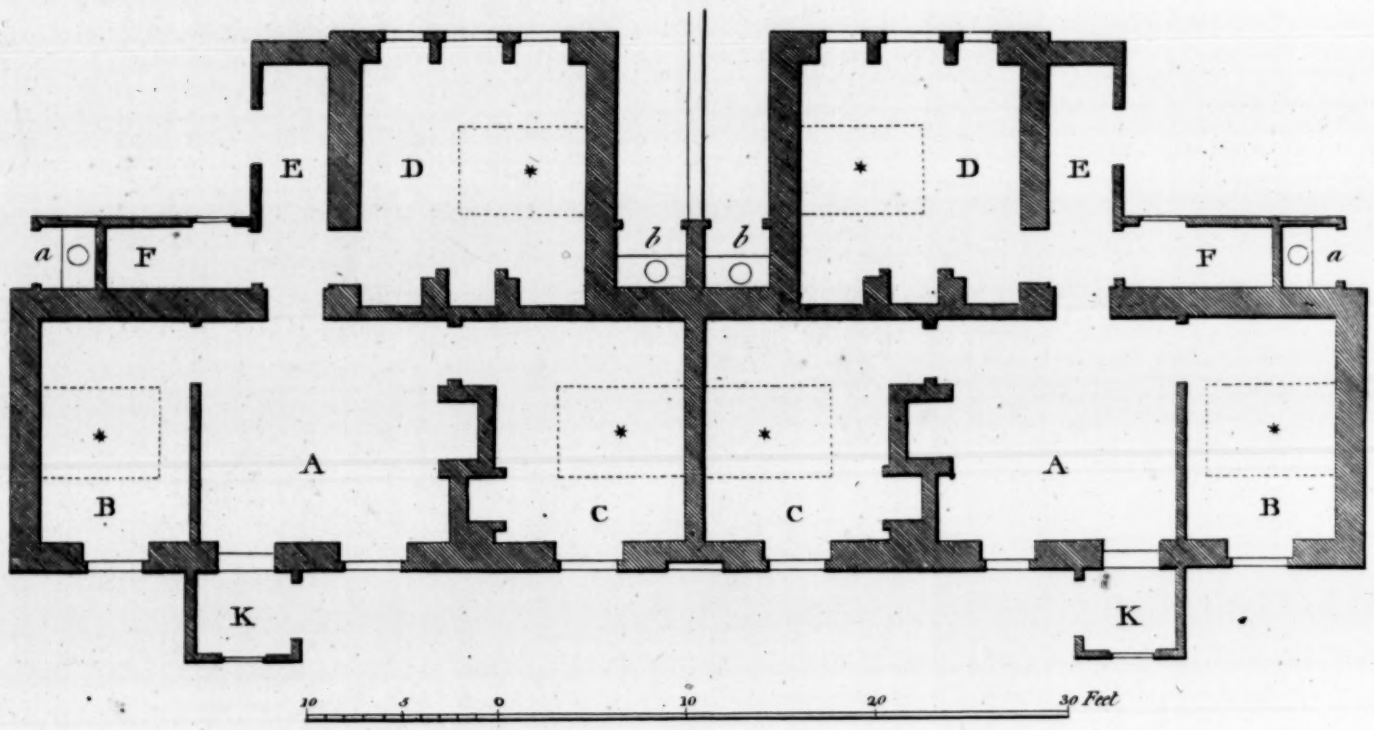
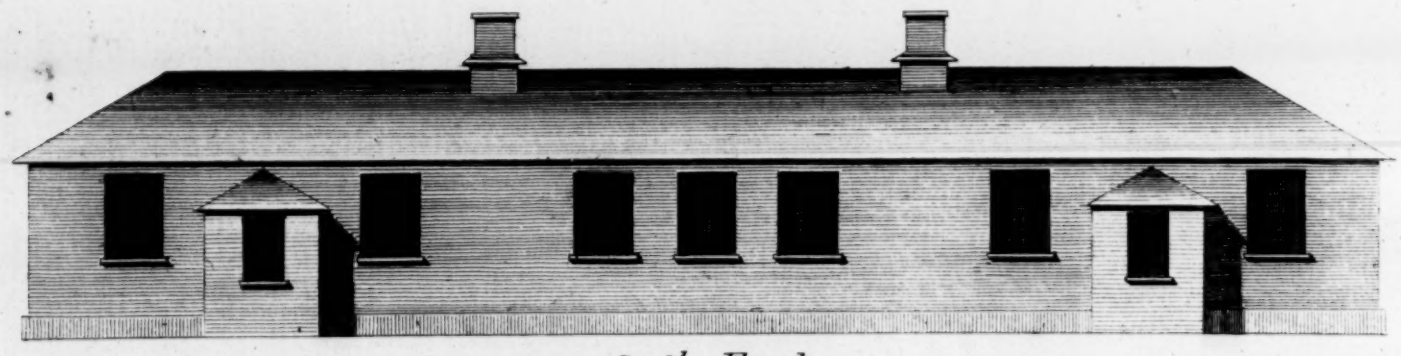


*North Front*



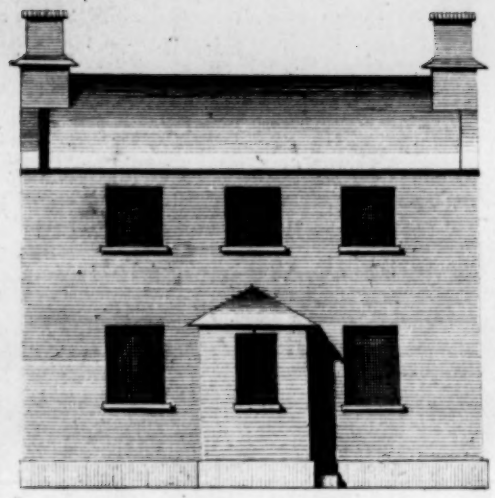



*South Front*

*Engraved at the expence of John Wood, Architect, after his own original designs and published by him Jan^y 1^st 1782*

*P. Begbie Sculp^t*

22 OCT 75



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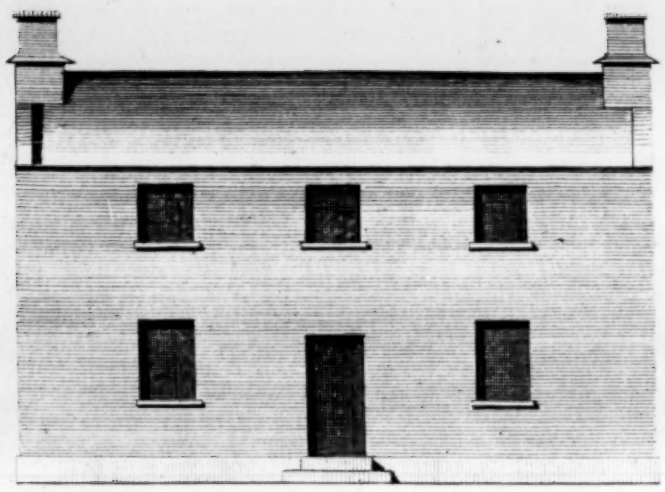

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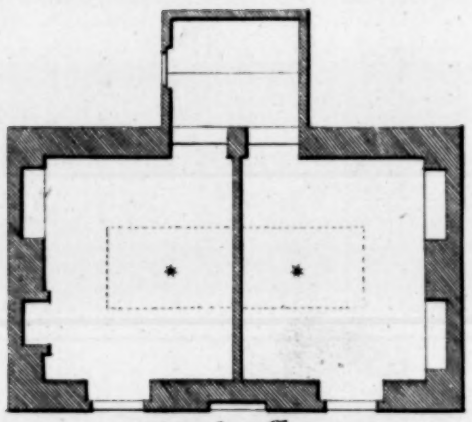
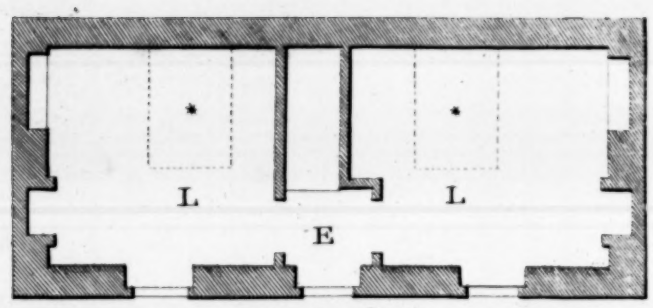
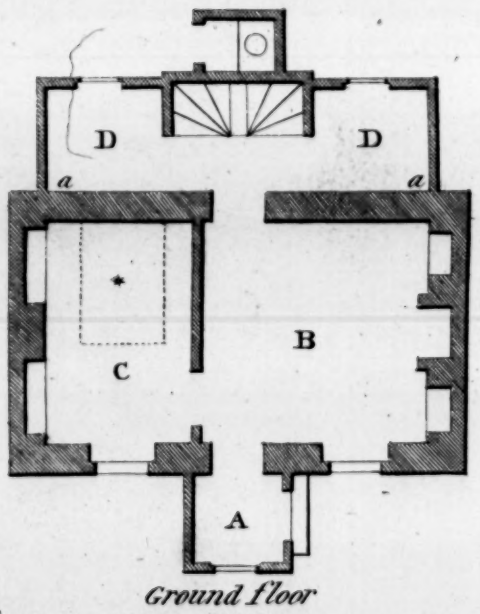


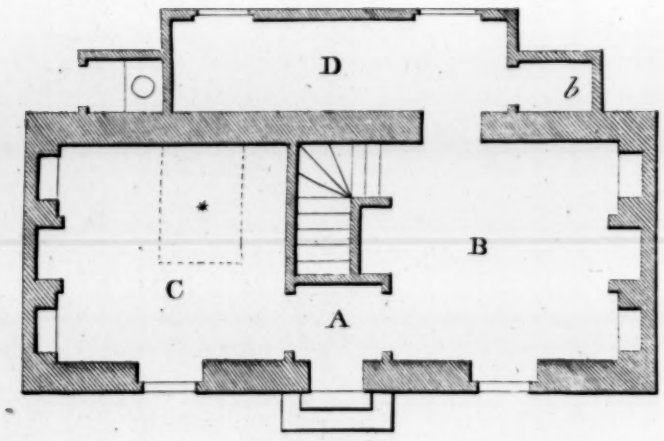
*Chamber floor*



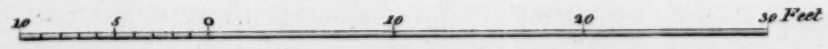

*Chamber floor*




*Ground floor*




*Ground floor*

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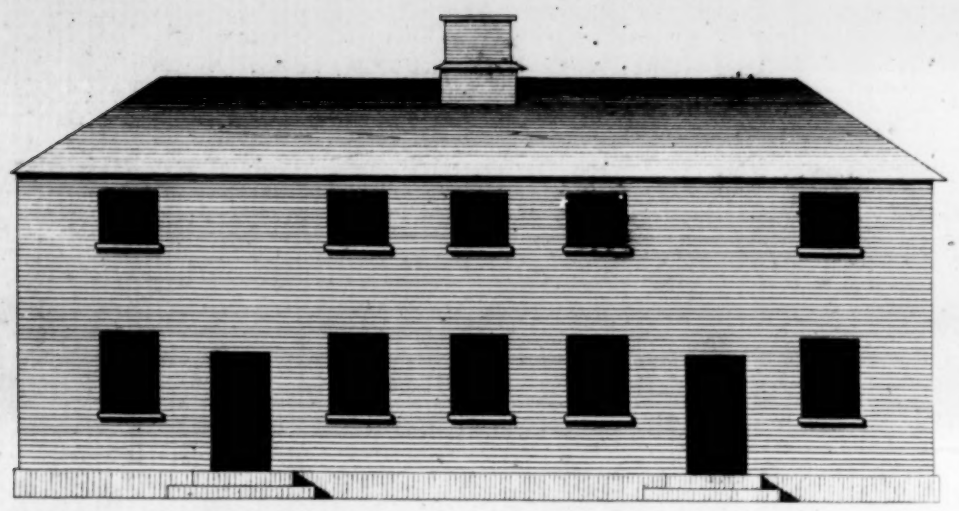
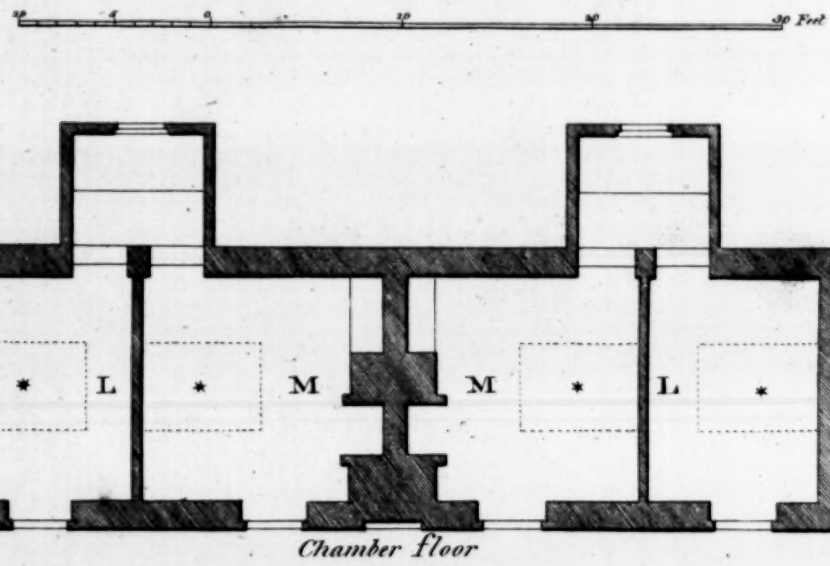
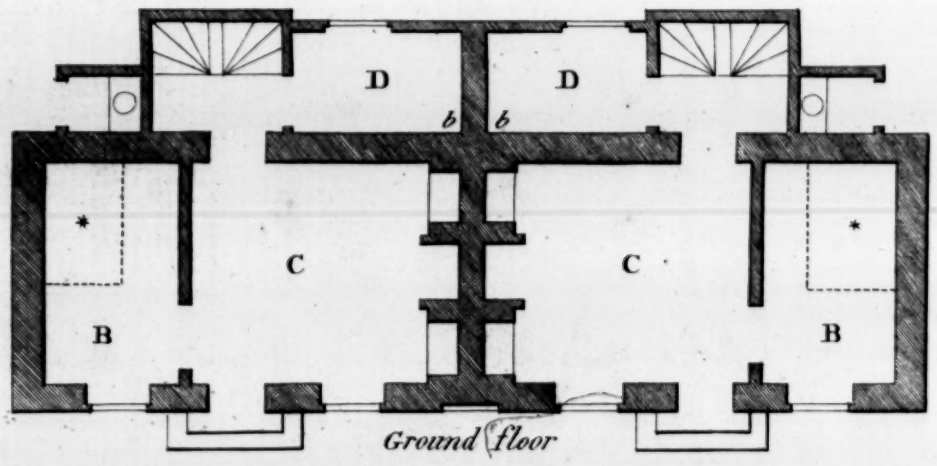




*Chamber floor*



*Ground floor*

*Engraved at the expence of* John Wood, *Architect, after his own original designs and published by him Jan.y 1.st 1781*

*P. Begbie Sculp.t*

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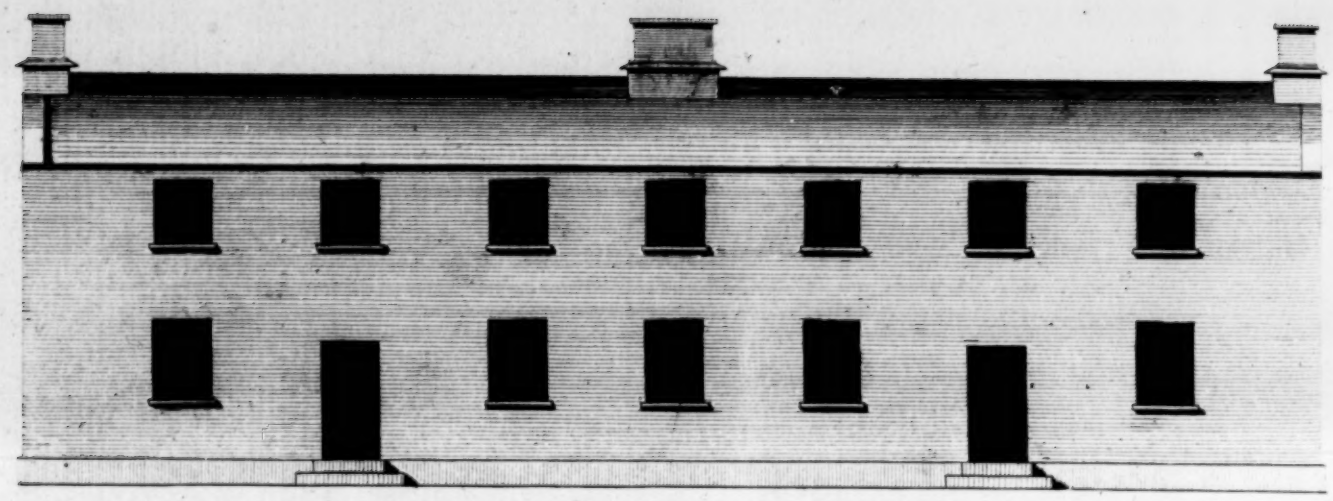
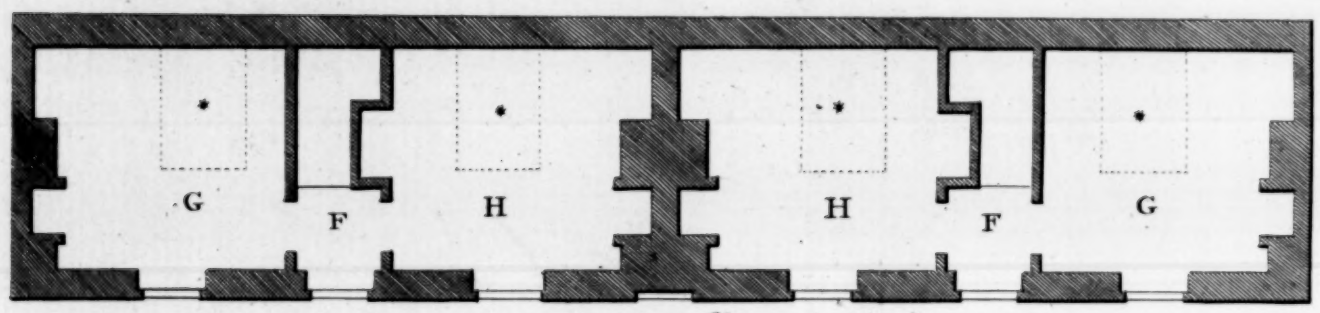
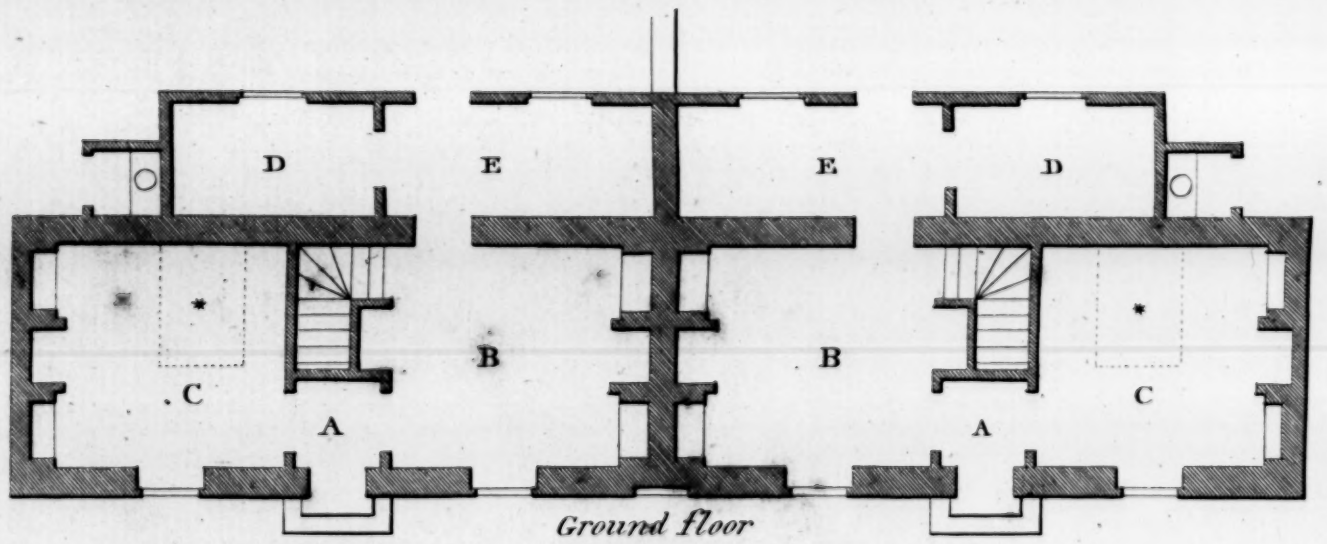
*Class. 4.* **Cottages with four Rooms** *Plate. XXVIII.*






*Chamber floor*




*Ground floor*

*Engraved at the expence of* John Wood, *Architect after his own original designs and published by him* Jan.ʸ 1.ˢᵗ 1781.

*P. Beghe Sculp.ᵗ*

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